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## ESSAYS, MONOGRAPHS, AND CASES.

*Paralysie Générale.* By M. H. RANNEY, M.D., Resident Physician of the N. Y. City Lunatic Asylum.

This disease has been but recently discriminated from other forms of paralysis. The attention of the medical profession was first called to it by Esquirol, within the present century. It may have been confounded, perhaps, with the results of apoplexy, ramollissement, tumors, tubercles, &c., of the brain. It is a singular fact, however, that its frequency has greatly increased during the last sixteen years, as will be seen by reference to the various annual reports of the Superintendents of American Hospitals for the insane. In the report of the McLane Asylum, for the year 1844, Dr. Bell remarks, "I have regarded it as a somewhat curious fact, that it is only within the last three years that this disease has been admitted to this institution. As late as my visit to Europe in 1840, it was unknown within our walls; nor, after seeing it so often manifested there, can I recall any case in our register which would at all meet its characteristics, rendering it certain that it was not overlooked. Since that period, however, we have abundant evidence that it is not a form of disease peculiar to other countries."

The recent investigations by Calmeil, Foville, Rodrigues, Falret, and others have thrown much light on its nature and character. The

name adopted by Esquirol does not give a correct idea of the disease. There is not usually complete paralysis, but the power of volition is partially lost, so that muscular action is imperfect and unsteady.

The characteristics of this disease are found in the paralysis, and in peculiar mental aberrations. Either the physical or the mental affection may be antecedent in its manifestation.

The first paralytic symptom is an affection of the muscles of the pharynx and larynx, which changes much the tone of voice and produces a difficulty in articulation. There is a peculiar "cracked" husky tone, and a hesitancy between syllables and words like stammering. A slight excitement produces a spasmodic action of the muscles of the face, particularly about the corners of the mouth and eyes. The tongue when protruded is tremulous, and thrown forward by successive efforts resembling the spasmodic action observed in chorea. The face becomes expressionless; as the disease progresses all of these signs become more marked, and a difficulty occurs in locomotion. The patient totters in his gait, and if he attempt to change suddenly his direction, is likely to fall. In falling he makes no apparent effort to recover himself, and his head strikes with equal force as other parts of his body. Deglutition is gradually impeded, and eventually there is a loss of control over the sphincters. In most cases epileptiform convulsions follow at intervals, varying from one week to three months, each of which seems to lessen the vital power of the system, and to increase, temporarily at least, the extent and degree of the paralysis.

The mental changes are marked both in the susceptibility and intellect. The patient is restless, constantly moving from place to place, peevish, fretful, and impatient of contradiction. He is ever discontented with his present condition, although the past and future afford unalloyed happiness. Opposition to his wishes is soon forgotten. Recent events are generally but feebly retained, while the past affords to his mind images of unparalleled success, and the future glows with day dreams of great achievements to be performed, or noble actions done. The disease may assume the form of mania, monomania, or dementia. The most prominent and usual characteristic is generally exaltation of the imagination. The belief is permanent, that he excels in everything, and possesses strength, wealth, influence, and intellectual capacity far beyond that of any human being. They who were previously endowed with a brilliant imagination, and had received high mental culture, present visionary schemes of the most attractive character. Their language is well chosen, and their style highly poetical. They project ships on an immense scale, and palaces of pure gold, control king-

doms, and discover the secrets of Providence. Great subjects alone occupy their attention. The following extract, from the register of the N. Y. City Lunatic Asylum, illustrates this phase of the disease. The imagery of the delusions is entirely that of the patient, and his style and language is retained as far as practicable.

"H. H., born in Virginia, age 32, admitted 1853. After receiving his degree at Yale, he was supplied with an abundance of money, and unrestrained in the gratification of every desire. His funds becoming exhausted, he endeavored to obtain a living by his own exertions, but with indifferent success, on account of the impairment of his mind and health through the influence of his former habits. His system is very feeble, and a large ulcer upon one of his limbs renders him almost helpless.

"The imagination of H. H., naturally active, is morbidly exalted. He believes himself to be the 'Earl of Warwick, the King—Maker,' and adds to the singularity of the delusion, by the conception that he is fourteen feet high, and large in proportion. He wishes to purchase the asylum and all its contents, proposes to bestow the most magnificent presents and the most extensive estates upon the physicians, and signs papers to that effect. Nothing is beyond his reach by reason of its expensiveness; nothing too good for his friends. His clothes are of the finest cloth, lined with the most costly satin, decked with intricate embroidery, and ornamented with buttons of enormous diamonds. For him magnificent pictures adorn the walls of mansions, which the highest architectural skill has reared. The souls of Praxitiles and Canova shine through the marble monuments of their art which fill the corners of his libraries. Through the stained-glass window, shaded by the heavy folds of Genoa velvet, the light falls upon the most rare editions of the works of those men, whose literature is eternal.

"Carpets, the delicacy of whose tints rival those of the summer cloud at sunset, cover the floors of his apartments. Tables inlaid with precious stones, which cause the envy of the brightest stars of heaven, uphold wines sparkling upon the brim of golden goblets, as if anxious to kiss the lips of the drinker, and viands which have been prepared with the consummate skill of the highest culinary art. Flowers of supernatural beauty, whose delicate perfume angels might use on their spotless garments, fill his conservatories.

"Among the spreading branches of the trees of his pleasant gardens birds of brilliant plumage and unrivalled song pour forth their sweet voices in harmony with murmurs of fountains, whose silver-edged

bubbles ripple over pearls and garnets, and whose banks are clothed with the herbage and verdure of the tropics."

Even they who previously possessed but little imaginative power evince now the most lively conceptions. Matters of common occurrence may occupy the attention, but are so vividly and fancifully described as to render it difficult to detect the real nucleus of fact. The exhilaration produced on certain individuals from stimulating drinks bears some resemblance to the expansive ideas in this form of paralysis. These delusions continue until the disease has progressed to a low state of dementia. There is an occasional exception to the general rule of exaltation. In such cases the mind seems depressed and enfeebled from the commencement of the attack, and the paralytic symptoms are very strongly marked.

The presentation of symptoms and the diagnosis being the principal object of this paper, I select a case from Esquirol, in which the prominent characteristics are given. "M. L. D., thirty-eight years of age, had participated in the last campaigns of the empire, and was elevated to the rank of colonel after the restoration; uniting to every physical and intellectual quality all the advantages of a lofty position in society, and a large fortune. He was of the opinion that he had experienced injustice on the part of the government. His self-love was deeply wounded, and after many days of insomnia he gave himself several thrusts with a knife in the region of the heart. He was promptly succored, and his services were but for a brief period discontinued. From this time he expressed with bitterness his dissatisfaction, but was in no respect less exact in fulfilling his duties as a commanding officer. Two years subsequently he has an attack of cerebral congestion, for which he is largely bled. Two days later he has a second attack, more severe than the first. He remains excited, talks much, is agitated, irritable, and exacting. He does not sleep, and after a third attack a true mania is developed. The delirium is generally attended with agitation and notions of grandeur and fortune. He commits a thousand extravagances, remains almost naked, talks incessantly, cries aloud, orders a thousand things at once, is impatient, and commits strange and imprudent acts, which compromise his life, though he entertains no idea of suicide.

"Several physicians are called in consultation, and the maniacal state of the patient cannot be denied. His age, however, and the brief duration of the disease, offer to the counsellors expectation of a cure. I affirm that the patient will never recover; 1st, because three severe attacks of cerebral congestion had preceded the maniacal state, and



that, consequently, there was some degree of cerebral lesion; 2d, because, notwithstanding his excessive loquacity, certain words are imperfectly pronounced, and because his gait, although lively and active, is uncertain. I added, that active medication would hasten the progress of the disease; that the country, exercise, a severe regimen, and the repeated application of leeches to prevent new congestions, appeared to me to be the only proper course. One of the consulting physicians did not concur with me in my unfavorable prognosis, and proposed certain tentative measures.

"After a month spent in fruitless attempts, we were obliged to renounce all hopes of cure. Paralysis had progressed and dementia was confirmed—the patient retaining incoherent notions of grandeur, which persisted for more than two years. He regarded himself as the possessor of several provinces and kingdoms; distributed palaces, and gave away millions, and commanded also an army of giants. His cavalry was mounted upon horses of gigantic size; he possessed palaces of diamonds, and his stature was 20, 30, and 40 cubits in height. He talked both night and day; now in a low tone, now loudly. He also uttered loud cries. Beset by hallucinations of hearing, he listened to the voices of imaginary beings, and replied to them, boasting of his person, disputing with and even abusing them. He recognized the members of his family, and addressed them with amiability and politeness; but after a brief interval, however, resumed his habits of constant conversation. He was sent into the country."

*Paralysie générale* occurs more frequently among males than females; in fact, among the latter it is of rare occurrence. No good reason has been assigned for this—the predisposing and exciting causes to which the disease is referred being found in operation in both sexes. At Charenton, of 619 insane (366 men and 253 women) there were 109 cases of general paralysis, (95 males and 14 females.) Into the Asylum at Halle, in the Tyrol, 257 men and 181 women were admitted, among whom were 28 cases of general paralysis, (22 men, 6 women.) In the New York City Lunatic Asylum, of 5,092 (2,391 men, 2,701 women) under treatment within the last eleven years, 85 deaths have occurred (76 males, 9 females) from this disease. It is a disease of adult life, rarely occurring before the age of twenty-five. Those of a sanguine temperament are more liable to an attack, especially if of a full habit, with a tendency to apoplexy. It occurs to a great extent in the class called *good livers*, who remain up late at night and indulge in suppers with a free use of wine, the mind at the same time being actively engaged. Venereal excesses, a free

use of mercurials, syphilitic diseases, a hereditary taint of insanity, or scrofula—in a word, everything that tends greatly to deteriorate the blood, impair the constitution, or lessen the vital power of resistance, may act as a predisposing cause. The exciting cause is generally some sudden mental shock—a loss of friends or property, great anxiety in business matters, or it may be an indulgence in very great excesses.

There are various diseases with which it has been and may be confounded. "*Ramollissement du cerveau*" has some symptoms in common with it; but the continued pain in the head, occasional vomiting, rigidity of the flexor muscles of the limbs, and stupidity, instead of exaltation of intellect, seem sufficient to distinguish it from general paralysis. In the last-named disease there is also a softening of the brain, but it is the cortical portion that is particularly affected, and this gives rise, usually, during its progress from irritation to softening, to the peculiar mental symptoms that have already been described.

Cerebral hæmorrhage is usually accompanied by paralysis of a hemiplegic character, and its sudden invasion with the ordinary apoplectic symptoms is a distinguishing feature in its diagnosis.

Inflammation of the brain or its membranes, as well as the affections of the spinal cord, might lead to error from superficial examination, but the rapid progress of the one and the paraplegic character of the other, without any peculiar mental aberrations, would indicate the nature of the disease. Delirium, arising from inflammation, differs essentially from delusions. There is generally a low condition of the system; the mind is not occupied with external objects, but seems to retire within itself, and in a half comatose state is manifested by incoherent mutterings without, ever exhibiting the reasoning power of insanity.

Paralysis caused by mercury, alcohol, or lead, may be distinguished by a careful study of the causes and symptoms, the muscles of the extremities being in these cases at first affected either with numbness, trembling, or a complete paralysis of the extensors.

Morbid growths of the brain, such as tumors, (malignant and non-malignant,) tubercles, &c., present many features in common with general paralysis. The character of the morbid growth can be inferred only from the particular diathesis, or by the external manifestations, the paralytic and mental conditions involved in them depending principally on compression and inflammation, with its sequences. The change occurring in the mental faculties is that of general enfeeblement, presenting eventually the ordinary characteristics of dementia.

The last stage of general paralysis closely resembles this, and its discrimination requires a knowledge of the previous history and a careful analysis of the successive order of the paralytic symptoms.

The following is selected from the case book of the New York City Asylum, as an illustration of this error in diagnosis. It had been considered as the effect of a morbid growth in the brain, previous to admission. "C. L. S., æt. 36, by profession an actor, was on the 10th of December, 1856, admitted into the Asylum. When admitted, he was found to be completely demented, paralyzed, unable to walk or stand, and with difficulty to swallow. He lingered nine days, when the disease terminated in death.

"The following history of the case, communicated by his brother, together with the post-mortem appearances of the brain, indicate the form of the disease of which the patient died to have been *paralysie générale*. His brother states that he had always been a temperate man. Some two years since, in consequence of domestic and business troubles, he passed through a period of great mental anxiety and excitement.

"A year ago last October, while in Philadelphia, he exhibited strong symptoms of insanity of a maniacal character, succeeded by a condition of prostration. Soon after recovery of physical health, a change in his character was noticed; he became irritable, impatient of contradiction; at times despondent, and then very sanguine of success in his profession and business. His time, following such recovery, up to April last, was spent in forming business plans and studying the important characters of Shakespeare, in the belief that he was to become a prominent actor, although his friends knew him to be incompetent in this respect from the great impairment his memory had lately suffered. When slightly excited, twitching of the corners of his mouth and tremors of the muscles of his face were noticed; his tongue was protruded with difficulty, and his voice altered and 'cracked' in its tone. All of these symptoms increased in intensity about the beginning of April last, when, on the 8th of that month, he had a convulsion of an epileptiform character, as described by his brother, followed by prostration. From this, he afterwards gradually improved until August last, when he had another severe convulsion, followed by loss of consciousness. For several hours previous to this last convulsion, it was noticed that his left arm had become paralyzed. He was then taken to a hospital, and for a short time improved so as to be able to walk about the ward, and regained considerable power in the use of his tongue and arm.

"During the four months he remained there, his brother states that he had several convulsive attacks similar to those already mentioned, followed each time by increasing helplessness and greater loss of mental power, until he became reduced to the condition in which he was brought to the Asylum. Autopsy fourteen hours after death: skull a quarter of an inch thick, and of a texture less dense than usual; dura mater and arachnoid closely adhered over summit of cerebrum; arachnoid thickened, and presenting an opaline appearance, with serum between it and pia mater; general appearance of brain, atrophied; the cortical structure somewhat softened and easily scraped with the knife or finger-nail from the white medullary substance; this latter was found to be hardened, of firm texture, and glossy in appearance; the ventricles were largely distended, and contained 3iv. of clear serum; the floors of both lateral ones had a feeling of roughness to the touch; the foramen of Monro was large and patulous, easily admitting the end of the little finger; the middle or soft commissure was wasted to a thin ribbon of almost transparent membrane; the pons varolii and medulla oblongata were of less than usual size, and the pituitary gland shrunken, and the upper portion of its peduncle enlarged. The weight of the brain, drained of the serum in its ventricles, was two and a half pounds, which is some ten ounces less than the average given by Solly."

The most common pathological change in *paralysie générale* is a softening of the vesicular neurine of the brain, especially in the anterior portion of the parietal regions. Sometimes the tubular neurine is also involved. Various other changes are occasionally found, such as thickening of the membranes, effusion of serum, induration of the cerebral substances, &c., but with no particular uniformity; and these, in fact, are found in many of the chronic diseases of the brain. The length of time in which the disease has progressed, must necessarily vary the cadaveric phenomena, and if death occur very early, there may be no manifest softening; yet from this it does not follow that it has not been in progress, that there is no organic detritus. Either a subjective cause like over-excitement of the mind, or an objective one like intemperance, or moral and physical causes combined, may over-stimulate the brain, and its continuance result in congestion, from which condition serum may be effused into the primitive cellules, causing irritation that may or may not end in softening. Why softening follows in this form of paralysis, but not in ordinary congestion, is not well settled. It may depend either upon some particular predisposi-

tion on the part of the patient, or upon some unknown peculiarity of the disease.

The prognosis is highly unfavorable. Rodrigues mentions a few cases of recovery, but by most the disease is considered incurable. Death follows, generally, in from one to three years after the first symptoms appear, but life is occasionally prolonged beyond the last-named period. If it occur early in the disease, the termination is usually by epileptiform convulsions; if at a late period, from general exhaustion, or disease of some important organ other than the brain.

The object of this communication being merely to call the attention of the profession to the general characteristics of this form of paralysis, I will not dwell upon the subject of treatment.

M. Rodrigues recommends the adoption, at an early stage, of active measures, such as frequent venesection, &c. After the disease is somewhat advanced, he advises the occasional abstraction of blood, in connection with tonics, aromatics, and cold baths, while at a later period he recommends laxatives, and revulsives to the skin. The treatment of M. Rodrigues has not been found successful when adopted by others, although he gives a very favorable account of its results.

The observance of general principles of treatment to meet the indication of the symptoms has seemed to be attended with as much benefit as the adoption of any other system. I have seen more temporary good effects follow the use of a seton, or the free application of Ung. Tart. Ant. to the back of the neck, than from anything else in the way of treatment. If at a very early stage the habitual excesses which had partially undermined the system were corrected, and a careful hygienic course pursued, some hopes might then be entertained of a gradual restoration.

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*Veratrum Viride in Pneumonia.* By W. C. ROGERS, M.D., Green Island, N. Y.

Caroline G., 15 years old, of sanguineo-nervous temperament, strong constitution, and good general health, was taken on February 1st, 1858, after a slight exposure, with cold chills followed by fever, intense thirst, pain in the upper portion of the left lung, accompanied by cough, accelerated pulse, and increased respiration. She was treated with the usual domestic remedies, warm pediluvia, mustard cataplasms to the chest, warm herb teas, &c., &c., until the morning

of the 4th, when I was sent for. I found her with the symptoms detailed above, the pulse 130, respiration 25, cough severe and harassing, with severe pain and tenderness upon pressure in the upper lobe of the left lung. Auscultation revealed extensive inflammation of the upper lobe of the left lung in the first, and advancing into the second stage. Ordered a large emollient cataplasm to be applied to the chest, and exhibited two five-grain doses of calomel, to be followed by castor oil, and grain powders of equal parts of camphor, opium, and ipecac to be taken every four or six hours. For the purpose of reducing the pulse and lessening the fever, Tilden's Fluid Extract of Veratrum Viride was given in six-drop doses every four or six hours, alternating with the anodyne powders. The following table of symptoms and treatment will greatly facilitate the record of the case:

Date, &c.	P'iso.	Resp.	Drops.	Remarks.
4th—9 A. M.	130	25	vi.	Calomel; castor oil; anodynes.
5th—9 "	90	20	iv.	Bowels moved during P. M. of 4th.
6th—10 "	88	20	..	Omit V. V. Tart. anti. $\frac{1}{2}$ gr. every 4 hours.
7th—10 "	88	20	..	Purged in night.
8th—10 "	88	20	..	Much improved. Expectorating freely. Sent for at 2 P. M.
8th—2 P. M.	150	50	viii.	Upper lobe, right lung, involved in extensive and intense inflammation. Left lung very painful; cough harassing, with no sputa. Blister 4x6 inches over left lung. Poultice over the entire chest.
8th—8 P. M.	140	50	viii.	Calomel in half-grain doses every 4 hours.
9th—9 A. M.	90	40	vi.	Continued Calomel.
9th—9 P. M.	90	40	vi.	" " " "
10th—10 A. M.	60	30	iv.	Gumstouched. Calomel omitted. Nausea.
10th—7 P. M.	80	40	vi.	Morphine to allay pain, and induce sleep.
11th—10 A. M.	75	40	vi.	Slept well. Improving rapidly.
11th—7 P. M.	72	40	v.	Expectorating quite freely. Nausea.
12th—10 A. M.	70	40	iv.	" " " "
13th—10 "	72	35	iv.	Very much improved.
14th—10 "	72	30	iii.	" " " Sat up.
15th—10 "	72	30	..	Omit V. V. Tonics. Sits up.
16th—10 "	72	25	..	Cough easy. Expectoration very free.
17th—10 "	72	20	..	" " " "
18th—10 "	72	20	..	Convalescing rapidly. Discharged.

On the night of the 7th the patient was purged quite freely, and the mother, exhausted by previous watching, having allowed the fire to go out, the patient contracted a very severe cold, which resulted in double pneumonia of a formidable character. The veratrum viride

and the proto chloride of mercury, given in small doses, and frequently repeated, allayed the fever, thirst and pain, reduced the pulse, and equalized the respiration and circulation in a very marked and satisfactory manner. And the effect was precisely the same in those violent exacerbations of the symptoms which are not unusual in this disease. It acted "like a charm." I have also used it in many other cases of pneumonia where it was not contra-indicated by feebleness of the pulse, or a typhoid tendency, and always with the same results. In one or two instances of continued fever, where the pulse was very frequent and free, I used it freely, but was obliged to discontinue it, as it produced feebleness of the pulse, with frequent intermissions, while it had little, if any, effect upon the frequency of the same.

Has it any specific effect upon an inflamed tissue? Does it modify or arrest inflammation? To this I should say *no*, most emphatically. The inflammation goes on to its legitimate results, entirely uninfluenced by the remedy. By its administration you can reduce the pulse to any desired limit, as in the case just related, where at 2 P. M. of 8th inst. the pulse was 150, full and bounding, and at 9 A. M. the next day, 19 hours after, was reduced to 90, a reduction of 60 pulsations per minute. The febrile symptoms had suffered the same diminution. *And this is the sum of its virtues in the treatment of any disease.*

Assuming that at each pulsation of the heart two ounces of blood are expelled therefrom, and pass into the pulmonary and general circulation, we have the entire amount of blood in the system passing through the heart and lungs in from two to three minutes, more or less, the pulse averaging 75 per minute. With the pulse as high as 150, we have the entire mass of the blood passing through the heart and lungs in less than one and one-half minutes. Now in acute pneumonia, and especially in acute double pneumonia, where the capacity of the lung is greatly diminished, and the demand for pulmonary activity is increased in a corresponding ratio, we have an increased quantity of blood pouring into the tender, inflamed and congested lungs; every respiration becomes a pang, and every pulsation of the heart adds suffering to suffering, until the patient sinks under the combined reactions of the disease, the respiration and the circulation. With the veratrum viride the circulation is entirely under control, the respiration measurably so, while the disease goes on to its termination. The benefit you gain from its use is this: you very greatly diminish both the amount of blood poured into the lungs in a given time, and the force with which it is ejected by the heart; you diminish the number of respirations, from the fact that you have diminished the func-



tional activity of the lungs by diminishing that of the heart; you in this manner afford the lungs such a degree of repose—so to speak—as is most favorable to a speedy resolution of the disease, and you have done all this without the loss of an ounce of vital fluid, and your patient is saved from sinking into a typhoid condition, or, if that complication supervenes, is far better prepared to combat the disease. If pushed to the extreme point of tolerance, the pulse may be reduced very low, as low even as 40 or 50 per minute, but its use to this extent is not only uncalled for, but is even decidedly dangerous. No more should be given than is necessary to bring the pulse down nearly to the natural standard, and to mitigate the severity of the symptoms. It is a very valuable adjuvant in the treatment of certain febrile and inflammatory diseases, but cannot in any sense of the term be styled a specific, nor should it be used to the exclusion of those other remedies which the experience of centuries has shown to be so efficacious in the treatment of inflammatory and febrile affections. It is of very great value as an adjuvant, but the range of diseases to which it is applicable is limited, and its use requires the constant supervision of the physician, and the exercise of his best judgment.

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*The Physiological Researches of Dr. Brown-Séquard.* By E. R. PEASLEE, A.M., M.D. (Concluded from page 360.)

RESEARCHES ON THE MUSCULAR SYSTEM. (Continued.)

X.—*The muscular and the nervous systems are normally excited by venous blood.* The new property discovered by Dr. B-S. in venous blood, is its capability of exciting all the contractile [muscular] and nervous tissues, so as to produce the kind of action belonging to each. Any agent which excites, merely provokes the manifestation of the vital properties of the tissue to which it is applied; e. g. galvanism, heat, cold, light, and certain acids and alkalies. Several physiologists have maintained that the blood is an excitant; but they understand the word in another sense, viz., that the blood *increases* the vital properties; which is a phenomena of *nutrition*, and not of *excitation*. It will be seen, further on, that the arterial blood augments the vital properties without producing excitation, while venous blood diminishes these properties while exciting them. Some authors, however, have attributed a true excitant property to both arterial and venous blood, but only in their action on certain tissues.

Dr. B-S's experiments led him to the discovery that venous blood is an excitant to the uterus, the heart, the intestines, the bladder, the iris, the blood-vessels, and the muscles of animal life. By injections of venous blood into the arteries of these parts and organs, contractions are promptly produced.

He has also ascertained that the nervous system, and especially the spinal cord, may be energetically excited by venous blood.

On the other hand, arterial blood does not act as an excitant, at least not manifestly. It *produces* vital properties; while venous blood *excites their manifestations*, as the two following experiments show. (1) Into one of the two posterior extremities of an animal just dead, arterial blood was injected, and into the other, venous blood. Contractions occurred in the latter limb, but not at all in the other. (2) Into the extremities of another animal some time dead, and just beginning to manifest the rigor mortis, the two kinds of blood were injected as before. The arterial blood regenerated the vital property [contractility] of the muscles, but there was no contraction unless an excitant was applied; but the venous blood produced no effect on the other limb.

Carbonic acid gas is the principal (if not the sole) agent in the blood which possesses the excitant property; and oxygen the principal one which maintains or regenerates the vital properties of the tissues. Arterial blood deprived of a portion of its oxygen, acts as an *excitant*; and venous blood deprived of its carbonic acid, nourishes and regenerates the tissues like arterial blood. An excess of either of these gases in the blood, therefore, makes it more excitant, or more regenerative, as the case may be.

Many facts published by Dr. B-S. also demonstrate (1) that carbonic acid is an excitant of certain parts of the nervous system; (2) that the more carbonic acid gas there is in the venous blood, the more powerful excitant it becomes of the nervous centres, of certain nerves, and of the muscular tissue.

Venous blood normally manifesting only the feeble excitant property sufficient to provoke the normal contraction of the heart, and the respiratory movements, becomes so powerfully excitant in asphyxia as to produce very violent convulsions in man and the lower animals. And the more sudden the asphyxia, the more violent are they; since in that case the carbonic acid more rapidly accumulates in the blood. The following facts have been established. (1.) The muscles of animal life, (and especially those of the face,) the intercostal muscles and the diaphragm, contract strongly during asphyxia, though separated

from the cerebro-spinal centre, by the division of their nerves. (2.) The spinal cord is so excited during asphyxia, although separated from the encephalon by division in its dorsal region, that violent convulsions occur in the paralyzed limbs, demonstrating that convulsions occurring in an asphyxiated animal, whose spinal cord is intact, do not depend on a feeling of need of air, (*besoin de respirer*), as some have maintained. (3.) The intestines, the bladder, the uterus, the ureters, the dartos, the vesiculæ seminales, the iris, the gall bladder, the thoracic duct, &c., contract in asphyxia.

The uses of venous blood are inferred from the preceding facts. It excites the muscular and the nervous tissues. (1.) Its principal agency certainly is the excitation of the heart, which will be considered under the next head. (2.) But it also gives us the sensation called the "*besoin de respirer*," and which results from its excitation of all the sensitive nerves and their centres, especially the centre of the respiratory movements, (*nodus vitalis*) in the medulla oblongata. (3.) Finally, venous blood excites the uterus, and thus aids the other causes of its contractions in parturition.

But venous blood also acts an important part in many convulsive diseases, and in cases of poisoning, attended by asphyxia. The first phenomenon of asphyxia in cholera, is a contraction of the pupil; a sign, when well marked, of approaching dissolution; although, as sometimes happens, the other choleraic symptoms are not yet very grave. And the singular motions after death by cholera, depend on a direct excitation of the muscles, by the venous blood. The expulsion, in some instances, of the foetus from the uterus after death depends on the same cause. And the acts of evacuation of the rectum and bladder just before death, so well known to nurses, is also produced by the excitation of the venous blood in these two organs respectively.

XI.—*Discovery of the principal cause of the contractions of the Heart.* Dr. B-S. considers that he has discovered this cause. All other contractile [muscular] tissues are susceptible of rhythmical movements, as well as the heart; e. g. the intercostal muscles, the diaphragm, and the muscles of animal life. The question is not, therefore, as to the cause of the difference between the heart and the muscles; but what is the exciting cause of rhythmical movements wherever found?

We know of but two agents capable of exciting the contractions of the heart and the muscles, independent of external agencies, viz., (1.) The nervous system; and (2.) The blood. Though the former may, in certain cases, excite the rhythmical movements of the heart and

muscles, many facts demonstrate that they do not depend upon it, and generally occur without its intervention. Ordinarily, therefore, these movements are excited by another cause, and consequently by the blood. But for the proof. Haller approached the discovery of the exciting cause of the beats of the heart, in admitting it to be the blood. But he erroneously supposed it produced this effect while in the cavities of that organ. This cannot, however, be true, since the heart may still beat forcibly and frequently, when its cavities are empty. Still, it is certain, both that the exciting agency of the blood may be exerted through the endocardium, and that the shock produced by its arrival in its cavities may excite the heart to contract.

But the great exciting cause of the beats of the heart, and of rhythmical movements generally, is found *in the blood-vessels of this organ*, and of the muscles alluded to; and the cause itself is the venous blood, or blood containing a considerable amount of *carbonic acid*. But the effects of venous blood have been specified under the preceding head, where it has been shown that the heart beats with more strength and rapidity in proportion to the amount of this gas in the blood.

Why are rhythmical movements produced by black blood? We can only say it is a property of blood charged with carbonic acid, to cause alternate contraction and relaxation of the fibres of almost all the muscles.

XII.—*Explanation of the paradoxical experiment of the Brothers Weber, respecting the suspension of the beats of the Heart.* When a motor nerve distributed to a muscle is galvanized, a contraction ensues therein. But the Brothers Weber found that when the pneumogastric nerves at their origin, or the medulla oblongata, are galvanized, contractions of the heart are not produced, but on the contrary are entirely arrested. The drollest explanations of this phenomenon have been given.

Dr. B.S.'s discoveries, however, afford the true explanation. According to most anatomists of recent times, and some of the present, the pneumogastric nerve gives no fibres to the muscular tissue of the heart. This is too exclusive an assertion; but it is certain that most of its fibres are distributed to the blood-vessels. Experiments prove that these are especially the *vascular* nerves of the heart. Thus, when they are galvanized, the vessels of the heart contract; when they are divided, the latter become paralyzed and dilate.

The experiment of the Brothers Weber is, therefore, easily comprehended. If the pneumogastric nerves are galvanized, the vessels of

the heart contract; and since, as Dr. B-S. has proved, the beats of the heart depend on the excitation of the blood in those vessels, it should, in the circumstances, cease to beat.

The following is an experiment confirming the theory of the beats of the heart, just enumerated. If a moderate galvanic current passes at the same time through pneumogastric nerves and the substance of the heart, its contractions continue; but they cease the instant the current is withdrawn. Re-apply the latter, and the beats are renewed; and this may be often repeated. The explanation is this: The current through the nerves alone would have stopped the beats, as above explained, (by contracting the vessels;) but that through the muscular *fibres* supplied a direct excitation instead of the one thus withdrawn. And when both currents are interrupted, the vessels *still remain contracted*; and now neither effects of the nervous blood nor the direct excitation of the fibres, by the galvanic current, remain, and the heart ceases to contract.

Dr. B-S. has also found that the sudden destruction of the medulla oblongata in frogs produces a sudden suspension of the beats of the heart, as does galvanization of this part of the nervous centre; [thus doubtless affecting the vessels in the same manner.]

XIII.—*The effect of light, and of a change of temperature upon the motions of iris, in the five classes of vertebrated animals.* (1) It is a very interesting discovery, both to physiology and to physics, that light, which has been supposed to excite the retina only, is also a direct excitant to contraction of the circular fibres of the iris. This influence is most manifest in the Batrachians and in fishes.

A.—If the eye of an eel or of a frog, removed from the orbit and completely denuded, is exposed to the action of light, the pupil promptly contracts; and if the eye is then put into a dark place it again dilates. From 50 to 100 contractions and dilatations may occur in one hour. When the light acts only on the retina of an eye thus removed, the iris remains motionless; but the latter moves when the light acts upon itself alone.

In living Batrachians, the iris contracts both under the direct action of light, and in consequence of its action upon the retina and the nervous centres.

Of the different rays of light, the most illuminating seem to act most energetically upon the irides of Batrachians and fishes, when removed from the orbit. The different excitability of the iris in different animals in this way, seems due to a difference in the thickness of this membrane, and especially to the anterior layer of pigment cells

and of vessels. Since light does not apparently act on the other muscles and nerves of the organism, there is reason to suppose that the disposition of these tissues in the form of a thin membrane (iris and retina) is a condition essential to its action.

The direct sun-light, the light of the clouds, that of the moon, of a lamp, or a candle, are all capable of producing contraction of the pupil in an eye removed from the orbit.

Light also produces contractions of the iris in fishes, but so slowly, that Sœmmering, Muck, and Haller asserted that the irides of fishes are devoid of contractility.

In the mammals also, and in man, light produces contraction of the pupil after death. During life, however, we may take account only of the action of light on the retina, and hence have no change to make in regard to the motions of the iris, in the doctrines established by Flontana, Fourens, and Herbert Mayo.

B.—The following facts have been established in regard to the effects of a change of *temperature* on the pupil:

1. In all animals experimented upon by Dr. B-Séquard (rabbits, cats, pigeons, &c.) the iris contracts under a considerable and a prompt change of temperature, whether the eye is removed from the orbit during life, or was examined *in situ* a short time before death.

2. The iris of the rabbit remains contractile for more than two days after the death of the animal; sometimes even after the rigor mortis of the limbs has ceased. The iris of the eel has remained contractile more than four days.

3. The duration of the contractility of the iris after death varies much with the temperature of the medium surrounding the eye. It is shorter as the temperature is higher.

4. For a change of temperature to act decidedly on the iris, it should be at least 68° to 77° (Fahr.)—whether it be increased or diminished.

5. If the pupil is excessively contracted, a rapid change, as just specified, causes its dilatation. If dilated, or slightly contracted, the same change of temperature re-contracts it.

6. The contraction and dilatation of the pupil under the influence of heat or cold differs entirely from the motions of the iris in living animals, since they are very slowly produced. The duration of the contraction varies from 2 to 10 minutes; and that of the dilatation from 3 to 15 minutes—seldom less.

7. The effect of a change of temperature is the greater and the prompter, all else being equal, the greater the change is; i. e., an eye

at 104° (Fahr.) will manifest the greater effect the nearer the new temperature approaches to the freezing point.

8. When an eye is alternately exposed to cold and heat, the pupil very rarely dilates after contraction to its former size; and besides, each contraction which follows a dilatation is more pronounced than the preceding. A pupil, after 60 to 100 alternate contractions and dilatations, attains to a state of decided contraction, and the iris then ceases to be contractile.

9. M. Bouchut has confirmed the observations of Haller and R. Whytt, that the pupil contracts in *articulo mortis*, and notably dilates at the moment of death. Dr. B-Séguard adds, that the pupil dilated at death gradually contracts after death, and attains to its maximum of contraction in 2 to 5 days. He thinks this slow spontaneous motion comparable to the rigor mortis in the muscular system generally.

Dr. B-Séguard has also proved that a vascular turgescence of the iris is not *necessary* to a decided contraction of the pupil; though it may exist, and may influence it in many circumstances. For light, heat and cold, as has been seen, as well as galvanism, produce an extreme contraction in eyes removed from their orbits.

XIV.—*A particular action of light and of heat upon the crystalline lens.* It is well known that the crystalline lens is often opaque after death, and that heat renders it transparent. Dr. B-Séguard finds that it may be rendered opaque at will, by exposing it to a bright light when the temperature of the surrounding medium is low (50° to 53.6° Fahr.) If when it has thus become opaque, (of a milky white,) it is placed near the flame of a candle, or other source of heat, or even if it be warmed in the hand, it again becomes transparent. It may thus be rendered alternately opaque and transparent a great number of times—the heat undoing what the light has done at a low temperature. But the latter does not produce opacity of the lens in the dark.

### 3.—RESEARCHES ON MISCELLANEOUS SUBJECTS.

I.—*Arterial blood is the regenerator of the vital properties of the muscular and the nervous tissues.* The properties of venous blood have been specified under a preceding head (X). The following facts are established in regard to arterial blood:

1. Under the influence of arterial blood, muscles which had become rigid not only recovered their contractility, but also the faculty called *muscular induction* by Matteucci.

2. The muscular fibres of the alimentary canal, the bladder, the uterus, the heart, of the hair bulbs (in man,) of the iris, and of the



blood-vessels—as well as the sensory and motor nerves and the spinal cord, may, under the influence of arterial blood, regain their essential vital properties, (contractility and sensibility,) after having lost them for a time, varying from a quarter of an hour to several hours.

3. The more oxygen the blood contains, the more powerful and rapid is its regenerating influence. The serum of the blood has no such power. The more globules the blood contains, the more marked its regenerating effects; but only when it is charged with oxygen. The last then appears to be the main regenerating element. It has been seen (X) that venous blood (i. e., blood containing little oxygen) has no regenerating, but, from the presence of carbonic acid gas, only an excitant effect on the tissues.

4. The quantity of blood necessary to regenerate the vital property of muscles already rigid, varies in many different circumstances. It has been made to return and remain nearly  $4\frac{1}{2}$  hours in  $15\frac{5}{8}$  ounces of muscle, by the use of only  $7\frac{1}{2}$  drachms of defibrinated blood. But it was necessary to re-inject the blood at least 40 times, and to charge it each time with oxygen.

5. Contractility of the limb of a rabbit separated from the body was maintained during more than 41 hours, by often repeated injections of blood charged with oxygen.

6. Even muscles long since paralyzed by the section of their nerves—motor nerves separated for two days from the spinal cord—and the last separated during several months from the encephalon—recovered their vital properties under the influence of arterial blood, a half-hour or more after having lost them.

II.—*Defibrinated blood should be used in cases of transfusion.* The utility of transfusion of the blood in certain cases has been established by Provost and Dumas, Blundell and Dieffenbach. But patients have died who might have been saved by it, on account of the danger from injecting blood, which might have produced death by its coagulation in their vessels.

Dr. B.S. has shown that fibrin is not necessary for the nutrition of the muscular and the nervous tissues; and thus confirms the conclusion of Bischoff, that defibrinated blood may be used with advantage in transfusion, and thus all danger from coagulation be avoided. This he has also proved by his experiments.

Nor does the beating of the blood to remove the fibrin change the corpuscles, as Dumas and others have asserted. Dr. B.S. has found it efficacious after beating it five hours, in restoring a cat dying of hæmor-

rhage. The objections, therefore, to the use of defibrinated blood in transfusion, are of no weight.

III.—*The influence of temperature in warm-blooded animals, upon their tolerance of asphyxia.* W. F. Edwards had shown that in a medium at a very high temperature, certain new-born animals die, if asphyxiated, much sooner than if the temperature be relatively low. Dr. B-S. finds the temperature of the animal exerts a great influence. For example, a kitten, whose temperature was  $98.6^{\circ}$  (Fahr.,) lived thirteen minutes in a state of asphyxia; another, at  $82.4^{\circ}$ , lived nineteen minutes; a third at  $75.2^{\circ}$ , survived thirty-one minutes; and a fourth at  $68^{\circ}$ , lived fifty-one minutes.

Adult mammals and birds also resist asphyxia much longer when the temperature is low, than when it is elevated. But the adult animal, (in case of the rabbit, at least,) does not live more than half, and sometimes not more than one-third as long as the new-born animal of the same species.

These results demonstrate the danger of applying warmth to persons asphyxiated, (as by drowning,) before the respiratory movements are completely re-established.

IV.—*The essential condition of hybernation.* It has often been asserted that cold is not necessary to hybernation; since it has been erroneously stated that the hedgehog (*tanrec*) of Madagascar hybernates in the summer. This is, however, not the fact; and Dr. B-S. has seen hedgehogs and other animals in a hybernal sleep, at a temperature identical with, and even higher than, the mean winter temperature of the countries inhabited by the *tanrec*. A diminished temperature is, therefore, essential to hybernation.

V.—*The immediate cause of death in certain cases of poisoning.* Chossat, Duméril, (son,) and Demarquay had shown that certain poisons depress the temperature of animals in a notable manner; and Chossat and Prevost and Magendie had proved that the depression of the temperature of mammals below a certain degree inevitably proved fatal.

These facts induced Dr. B-S. to inquire whether the diminished temperature in certain cases of poisoning did not itself alone cause death; and he has found this to be the fact. A dose of a poison sufficient to produce death if the temperature falls without any obstacle, does not kill if it remains normal, or nearly so.

Hence, in cases of poisoning in man, the temperature must be maintained at the normal standard, if possible.

The poisons experimented with were opium, hydrocyanic acid, hy-

oscyamus, digitalis, belladonna, tobacco, euphorbium, camphor, alcohol, and the following acids: oxalic, sulphuric, nitric, hydrochloric, and, finally, also certain oxalates.

VI.—*The mode of action of poisons which produce convulsions.* The following facts have been established by Dr. B-S., with Dr. Bonnefin:

1. The convulsions occurring in cases of poisoning by strychnine, hydrocyanic acid, picrotoxine, nicotine, morphine, cyanuret of mercury, sulphuret of carbon, and oxalic acid, do not result from a direct action of the poison on the muscles, nor the motor nerves.

2. These convulsions are not due to an increased excitability of the nerves of common sensation, either in the skin or in the posterior roots of the spinal nerves.

3. No more are they due to a direct excitation of the spinal cord.

4. The above substances seem to act principally in exciting the reflex (diastaltic) action of the cerebro-spinal centre.

5. The convulsions appear not to occur spontaneously, and to occur generally by reflex action.

VII.—*How is death produced by lightning?* This is a question of easy solution, though no lesions are found to account for the fatal effect. Every excitant of the nervous or muscular force diminishes the amount of these forces in an individual at a given moment, in proportion to the energy of its action. Hence lightning, being a very powerful excitant, exhausts the whole amount of nervous and muscular force in those it strikes. These forces annihilated, life must cease; since no important vital act can be accomplished in their absence.

Lightning kills, then, by exhausting all the dynamic forces of the animal economy. No visible lesions, therefore, occur.

Death by lightning is characterized by the absence of the rigor mortis, and the prompt appearance and rapid progress of the putrefactive process. The law specified on p. 359, (VII.) obtains here, also, in respect to the action of lightning. Its mode of action is shown by the following experiments:

The heart was removed from five mammals (rabbits, &c.) of the same species, and in all respects alike, so far as could be judged. One was left untouched, and the remaining four were submitted to the action of electro-magnetic currents of different intensities. The following were the results on the rigor mortis:

- 1st animal, not galvanized, rigor mortis occurred in ten hours, and continued eight days.

- 2d animal, very feebly galvanized, rigor mortis occurred in seven hours, and continued six days.

3d animal, somewhat more galvanized, rigor mortis occurred in two hours, and continued three days.

4th animal, still more strongly galvanized, rigor mortis occurred in one hour, and continued twenty hours.

5th animal, most powerfully galvanized, rigor mortis occurred in seven minutes, and continued fifteen minutes.

Since the rigor mortis continued eighty times as long in the 4th animal as in the 5th, though the current was not more than twice as strong in the latter as in the former, is it not infinitely probable that lightning, which far surpasses in power our electro-magnetic apparatus, would produce a rigor mortis continuing only a few seconds, or even a minute fraction of a second? And by parity of reason, would not the rigor mortis commence immediately after death by lightning?

In the preceding experiments, putrefaction occurred, as always, almost immediately after the cessation of the cadaveric rigidity; in the 1st animal at the end of eight days—in the last, in about twenty minutes. We see, then, why putrefaction so rapidly follows death by lightning.

When the rigor mortis is established in a limb, the passage of even a very strong galvanic current does not at all change the duration of the rigor mortis, nor hasten the putrefaction. It appears, therefore, that galvanism applied to muscles still retaining their irritability, has no other action than to excite them to contraction; and that it is the *præ-mortem* changes, which necessarily accompany all muscular contraction, which prepare the muscles to putrefy rapidly after death.

VIII.—*The cause of fatal Syncope under the influence of Chloroform.* Dr. B-S. concludes that the syncope is produced by a contraction of the vessels of the heart. [The excitant effects of the venous blood are thus withdrawn, as in case of galvanization of the pneumogastric nerves; which has been explained under a preceding head. [See XII.]

IX.—*The temperature of Human Urine.* Braun and De Lisle had estimated the temperature of this secretion too low, and Hales, too high. Dr. B-S. adopted a process preventing the cooling of the urine by the air, and found that in six vigorous men, (sailors,) its temperature varied between  $100.94^{\circ}$  and  $103.19^{\circ}$ , the mean being  $102.39^{\circ}$ . These experiments were made on the ocean, between the 43d and 45th degree of North latitude. More than thirty examinations of his own urine, in the most varied circumstances, almost always gave the same temperature— $102.44^{\circ}$ . The extremes were  $101.84$  and  $102.72^{\circ}$ .

ERRATA.—Page 354, line 15, for *myself* read *himself*; p. 359, line 18, for " $54^{\circ}$  to  $66^{\circ}$ " read " $50^{\circ}$  to  $59^{\circ}$ ."

*Puerperal Fever. An abstract of the Discussion at the Paris Academy of Medicine. Collated from the French Journals for the MONTHLY. (Continued from page 347.)*

M. Beau, in reply to the request of M. Depaul, that he should make known the results of the treatment pursued at the Cochin Hospital, for puerperal fever, that is, by the sulphate of quinine, said substantially as follows:

You know, gentlemen, there are two views in relation to the disease which constitutes the subject of this discussion. Some regard it as an inflammation analogous to peritonitis; others, as an essential fever, a pyrexia, in which the anatomical lesions are only accessory and secondary. M. Depaul adopts the latter, while I include myself among those who accept the former doctrine. Let us see what are the reasons which militate against the one or the other view; but first, let us remark that puerperal fever has been divided into two kinds, by Doublet: 1st, a light, ephemeral fever, continuing only a day or two, the milk fever; 2nd, a malignant or severe fever. The discussion is upon this latter form.

The idea of considering puerperal fever as a pyrexia is very ancient. Bichat, after numerous autopsies, revolutionized the idea of a pyrexia, and caused that of an inflammation to be adopted. Having especial reference to the anatomical lesions, which he most frequently met, he considered puerperal fever to be a peritonitis, and for a long time the affection which we are now discussing was designated only by the name of puerperal peritonitis. The progress of pathological anatomy, however, revealed lesions common to phlebitis and lymphangitis; and puerperal peritonitis not being applicable to these different lesions, the old name of puerperal fever, which embraced all, was resumed.

I think that puerperal fever arises from an inflammation, and that this inflammation itself is under the influence of an inflammatory diathesis. I add, that the action of this diathesis, which is common, and so to say, habitual in the puerperal state, is singularly favored, exalted, by the epidemic constitution; another mysterious influence, which combines its action with the preceding to arouse and develop puerperal inflammations. Diathesis is not a 0 in pathology, it is an  $\alpha$ , which is very different. The diatheses are not symptoms in themselves, they are revealed by their manifestations. For instance, the development of tubercles is preceded by the tubercular diathesis, which is not known till tubercles are manifest. The danger, then, does not arise from the diathesis, for when it is present alone, death

never ensues; it is the manifestation of it which produces death. The tubercular diathesis is inoffensive, but its manifestation, tubercle, is mortal.

Of all the manifestations of the puerperal diathesis, peritonitis is the most frequent. Ordinarily, it is present alone; sometimes it is accompanied by lymphangitis, phlebitis, &c.

This peritonitis, which is sometimes uterine, sometimes general, may be accompanied by a considerable tympanitis of the intestines, which alone, constitutes a most serious danger, by interfering with the respiration, and consequently with aëration of the blood, by crowding upon the diaphragm. Often a mortal danger results from polypoid concretions, which form in the heart. These concretions, more frequent than they are thought to be, are formed by the buff of the blood, by the fibrin, and give by themselves, to the disease of which I speak, an inflammatory character. This complication, which is not only frequent, but habitual in peritonitis, explains the anxiety, and the general disturbance, which the intensity of the peritonitis will not explain. There exist great differences in the symptoms, according as the peritonitis is partial or general. The peritoneum, in all its folds, is an immense membrane, the extent of which is certainly more than double that of the skin. It can be understood that, from a more or less complete inflammation of this membrane, differences in severity may result, which give rise to differences in the nature of the disease. It is the same as in bronchitis, according as a single tube or all the ramifications of the air passages are invaded. Differences in quality are mistaken for differences in quantity.

M. Depaul and myself agree, that puerperal fever is preceded by something, and I have just tried to explain what I understand by diathesis. I hope that the great interval which separates diathesis from pyrexia, admitted by my opponent, will be understood without further explanation.

Let us examine if puerperal fever presents the characteristics of inflammation rather than those of pyrexia. Its début is brusque, there is a chill, and pain in the pelvic region; but pneumonia, which is an inflammation *par excellence*, commences in the same way.

In pyrexias there are always some eruptions; this is their peculiar characteristic; for example, the eruptive fevers and typhoid fever which is always accompanied by the lenticular eruption; none exist in puerperal fever.

There are, it is said, some typhoid symptoms in puerperal fever. That is true, but let us not be deceived by this, for typhoid symptoms

appear at the last stage of all inflammations which terminate fatally.

Other characteristics still more convincing, are furnished us by the blood. According to MM. Andral and Gavarret, the fibrin never increases in pyrexias; the contrary is the fact in inflammations. How is it as regards puerperal fever? There are not many observations upon this point. Still, I have found a few researches recorded by M. Hersent in his thesis, in 1845. The author, as he himself says, having preconceived ideas, believed it was a pyrexia, and that consequently he should find proofs of the liquidity of the blood; but he found no evidence of this condition, in his experiments upon this fluid in puerperal fever.

After having stated that during gestation the fibrin was in greater proportion than in the normal state, M. Beau read different passages from M. Hersent's thesis, showing that in puerperal fever the fibrin was sometimes increased in quantity, but never diminished, even when this fever took the typhoid form. From this, it is right to conclude that this affection is an inflammation, and not a pyrexia.

Its contagious character is adduced as an argument against considering puerperal fever as an inflammation. But contagious inflammations are not rare; certain inflammations of the conjunctiva, dysentery, &c., which are evidently phlegmasias, are contagious; and again, in favor of pyrexias, the fact of the general disturbance which produces death in the child may be adduced. Cannot both individuals be subjected to the influence of the inflammatory diathesis?

The partizans of pyrexia find a difficulty to be overcome in the fact that they admit two kinds of peritonitis—an inflammatory peritonitis, which no one doubts, and a febrile peritonitis. But how can they be distinguished? I do not know.

And now as regards the treatment. The following is my method: I first administer ipecac, whatever may be the form of disease. Then I give a gramme (fifteen grains) of sulphate of quinine, informing the patient in regard to the effect it will produce, so that they may not be a source of alarm, and then continue this medicament in 10 to 12 grain doses every eight hours.

The next day there will be less heat of the skin, the pulse will be less frequent, the patient will feel better, and the countenance will be less changed.

It is important to ascertain the degree of tolerance of the patient; as soon as the quinism diminishes, the dose should be increased. The sulphate of quinine should be administered several successive days. Sometimes the patients throw it up; another dose should then be given;



and when the repugnance to it cannot be overcome, it should be administered by enemata.

This method of treatment is rendered difficult by patients being differently affected by it.

As accessory treatment, I put large blisters over the most painful parts of the abdomen.

Can all forms of puerperal peritonitis be cured by this means? Evidently not. Those inflammations of the peritoneum which are limited, those which can be called sub-umbilical, are cured; the supra-umbilical are not cured. The sub-umbilical cases, complicated with fibrinous concretions of the heart, are not cured. If the name of puerperal fever be reserved for the severe forms, I admit that I do not cure them any oftener than do others.

I am requested to give observations, facts, which demonstrate the efficacy of the method of treatment I have prescribed. These can be found in the thesis of one of my former pupils, M. Barbrau, (Paris, 1857,) who zealously followed my researches at the Cochin Hospital.

The treatment of puerperal fever by sulphate of quinine is not new. I do not claim any priority for it. I only observe that I have adopted a method which differs essentially from my predecessors, in that I employ the quinine alone, and in large doses; for I repeat, that I regard puerperal fever as a disease depending upon an inflammatory diathesis, and the treatment to be applied to it is that which is proper for acute articular rheumatism, and all other affections characterized by an increase of fibrin in the blood.

*Mr. Piorry* commenced his remarks by saying that he should consider the subject in a practical manner, rather than present any sterile theoretical conceptions. After repeating the different phenomena which are observed under the name of puerperal fever, and which have already been stated, he observed that most authors have regarded the whole of these pathological facts as a disease, a morbid unity, and that some referred the phenomena to an epidemic affection, others to a peritonitis, and others again to a phlebitis, or, in short, to that particular characteristic of the disease which seemed to predominate, and which conformed the best to their general doctrines.

To understand puerperal fever properly, and in order to treat it with a judgment rich in practical applications, it is necessary to take into consideration the circumstances which surround parturient women, and the modifications their organisms have undergone.

1. They are almost always placed in an atmosphere which is not renewed, in which is disseminated fetid odors, arising from fluids flowing from the vagina and other parts of the body.

2. As a consequent of parturition, the vessels are usually patulous, owing to the loss of fluids the woman has sustained, which wonderfully favors absorption.

3. The uterus is then contracted upon itself; but its cavity presents a large sac, in which liquid or coagulated blood, mixed with air, is in contact with the uterine sinus, which favors the penetration into the circulation of the various fluids enclosed within the womb.

4. Let us add, that the blood of a recently delivered woman contains few globules, a great deal of serum, and a little iron; that the abdominal and thoracic organs are greatly modified in their structure and consistence by the compression they have been subjected to, and that the peritoneum which was before distended, now leaves in part the surface of the womb, and is in such an organized condition that it is predisposed to alterations of structure.

5. Soon after accouchement a new action takes place, accompanied towards the fiftieth hour by a fever, congestion of the mammary glands, and secretion of milk.

6. The patient is then subjected to various moral impressions, which can have a marked influence over the accomplishment of the functions.

It is in the attentive study of these facts that we find the logical explanation of the puerperal symptoms, and it is not the admission of a morbid unity, called puerperal fever, which upon one side explains the phenomena observed, and upon the other conducts to a useful rational treatment.

In fact, we have nothing to do in the class of symptoms arbitrarily grouped under the title of puerperal fever, with a morbid unity, an essential affection, a disease with a special poison as its cause, of a regular course, always the same for all attacked by it, a disease which demands a specific treatment, prescribed from some illusory theory or in a routine practice. On the contrary, we have to act in the case of a woman who, presenting the peculiarities of organization which attend the condition of gestation and parturition, already suffers from the physiological phenomena of the lacteal secretion, and perhaps of a veritable galactemia; of a woman who, ordinarily in a bad location, is subjected to the action of a virus, or of a poisonous agent, producing a deleterious influence upon the blood by respiration, and upon the liquids contained in the uterus; finally, of a woman who is attacked by some or a greater number of the following pathological (organopathic) conditions: serious inflammation of the uterus, from septic cause; partial or general phlebitis; utero-peritonitis; septico-peritonitis; septæmia; pyæmia; pleuritis; arthritis; ethmyphitis; retention of fecal matters, and of gas in the intestines simulating peritonitis, &c. &c.

Considering the facts in this light, the rational indications are immediately apparent, and evidently refer, not to the disease, *puerperal fever*, but to its component elements.

Let authors who are pleased with theories upon the unity of diseases, tell us what is the empirical remedy which has succeeded in their hands; let them recall all the formulæ, all the special medicines which have been proposed, from opium and mercury to quinine, and prove to us, if they can, that the rare successes obtained have been due to anything else than the action of the organism; let them admit with us:

1. That rest, cataplasms and cleanliness are useful for uteritis.
2. That peritonitis, when there is enough blood in the system, is ameliorated by local bleedings, water fomentations, and mild purgatives.
3. That it is indispensable to clean the uterus (by injections carefully made) of the blood, and the putrid sanies which it contains. For five years I did not lose a single case at the Hospital La Pitié, from puerperal peritonitis, and in all cases of confinement the uterine injections were practised.
4. That there is no remedy for peritonitis of a septic or *galemic* character.
5. That the usefulness of good air and cleanliness is, in relation to preservation and cure in septæmia, of the greatest importance.
6. That for pyæmia or purulent cachexia we can only have recourse to purgatives.
7. That for pyogenic inflammation these same purgatives, however useless they may be, are still the only treatment that can be proposed.
8. That in cases where fecal matters and gases are accumulated in the intestines, simulating peritonitis, purgatives administered by the rectum, and frictions with oil over the abdomen, relieve the pains and symptoms from which the patient suffers, like a charm.
9. That pyæmia, when very marked, excludes the use of bleedings and means proper to evacuate the liquids, and on the contrary requires, if it is possible to give it, nourishing diet.
10. That the crowding up of the viscera, and the cardiac and pulmonary symptoms which it causes, imperiously demands the use of remedies to evacuate the gas and feces.

These indications do not in any way exclude the use—1. Of administering sulphate of quinia when the spleen is voluminous, and any intermittent phenomena are present. 2. Of having recourse to emetics, if liquids become accumulated in the air-passages. 3. Of evacu-

ating the urine if it accumulates in the bladder. 4. Of frequently changing the position of the patient when hypostatic pneumonia is present.

It is my opinion, then, that in the attentive study of the organization and of the pathological conditions, the proper understanding of the etiology, diagnosis, and treatment of the symptoms called *puerperal fever*, is to be acquired. If it is regarded as a morbid unity, we immediately fall into an irrational empiricism which confounds everything, unites under the same denomination the most remote things, and what is worse, causes us to adopt or reject remedies, from the application of facts incompletely investigated either by prejudice or routine.

*M. Hervez de Chégoin*, recalling the differences of opinion in relation to the nature of puerperal fever, thought all this confusion was owing to the desire of some to refer it to one and the same form, and that consequently they had regarded certain phenomena as inexplicable, which properly were the effects of different causes resulting, however, by being confounded, but the primitive symptoms, the point of departure, and the progress of which were not the same. All this became clear, everything followed the ordinary simplicity of physiological and pathological acts, when, by a distinction founded upon rigorous observation, puerperal fever was regarded as having a double origin, and presenting therefore a double form: 1. The *putrid form*, regarding the putrefaction of the clots retained in the womb, or the putrescence of the tissue of the womb itself as the cause. 2. The *purulent form*, having an inflammation of the womb as a point of departure, and which, succeeding the absorption of the element of pus, is developed, not immediately, like the preceding, but after a certain variable time.

Putrid puerperal fever is recognized by the chill which occurs ordinarily upon the third day; by the small frequent pulse (140 to 150); by the agitation, insomnia, loquacity, slight delirium; by the great and sudden tympanites *without pain* (characteristic sign); and finally, by death, which also usually takes place the third day from the beginning of these symptoms, and the sixth after confinement.

I do not regard the pathological relations which are found at the autopsy, any more than *M. Dubois*, as the causes of the disease, but the effects, and we only differ in the fact that for me this cause is no longer an enigma, but a material one which can be perceived.

In purulent puerperal fever there is no fixed time for its appearance, for it depends upon the inflammation which can be determined by causes

acting immediately or tardily. In this form the bowels, contrary to the condition found in the putrid form, are painful from the beginning; the chill and fever is present in this as well as the other form, but the pulse is less frequent, less feeble; the skin is hotter, but no delirium. It is not until later, when purulent absorption has commenced, that symptoms similar to those observed in the putrid form are also developed. The effects of this purulent intoxication are well known, and the secondary disorders which are found at the autopsy are, as in the other form, the result, and not the cause of the disease.

The distinction into these two forms, putrid and purulent, can explain all, and dictates the rational treatment of the disease, at the same time that it teaches us that preventive medication, prescribed in advance before we know what we have to deal with, cannot always hit it right.

Assuredly in the putrid form all the hygienic conditions of salubrity are of the greatest importance; but it is often necessary to seek in the confinement itself, in the manner with which it is accomplished, the cause of the disease, and the preventive indication. After an easy and too rapid delivery, should not the physician fear that the womb, which is not relieved of the products of conception by sufficient contractions, is in an unfavorable condition to expel what may remain of the placenta, or of the membranes, or of the fluids which flow from the uterine surface, and, on the contrary, in a favorable condition for absorption on account of the state of the uterine veins? Should he not then excite secondarily these contractions, and if he learns by an examination of the placenta that some portions of it remain, is it not indicated that the womb should be relieved of them by injections? I am so firmly convinced of the usefulness of injections, that I believe it possible to prevent putrid infection by them. Can I doubt it when I have seen the first symptoms of this infection cease immediately after a washing out of the internal surface of the womb?

But when putrid fever is once developed, what is the proper treatment for it? Three indications are present: 1. To eliminate the cause by frequent injections, and by the opportune administration of purgatives and sudorifics; 2. To neutralize, or at least attenuate the toxic action of the absorbed matters; 3. To put the whole economy in a condition to resist this serious influence, by properly employing antiseptics and diffusible tonics.

In purulent puerperal fever, at the onset, the antiphlogistic treatment should be employed with all its energy. Purgatives, mercurial frictions constitute the best prophylactic treatment for this form, which the physician should always suspect as soon as he sees an inflamma-

tion of the womb appear after delivery. Later in its course, when infection has taken place, the indications laid down for the putrid form should be adopted.

It will be observed from what I have said, that puerperal fever can be developed under the most favorable hygienic conditions; but the atmospheric causes, which can promptly alter the organized liquids or develop inflammatory symptoms, can produce also both putrid and purulent puerperal fever.

As to contagion, which arises in the midst of a large number of lying-in women, it does not take place from within, outwardly; but from without to within, through the air-passages, which are much more favorable for absorption than the uterine surface. I do not believe that this contagion can be carried by a physician, or any person who has just visited a case of puerperal fever; the quantity of miasm which can be transported in this manner does not seem to me sufficient for this mode of transmission. We know, in fact, that a certain quantity of venom or of putrid matter can be introduced with impunity into the air passages and digestive apparatus of animals.

From this I conclude:

1. That puerperal fever is nothing but a general infection, which consists in an alteration of blood occurring consecutively to delivery.
2. That this infection is of two kinds: putrid or purulent.
3. That its seat is in the womb, and that I can say with truth: "*Morbus totus ab utero procedit.*"

These two forms, different in the commencement, become confounded in their last stages.

The causes of putrid puerperal fever are such as retain in the womb matters which should be expelled after confinement. These causes are often individual. There are also causes which I call hygienic, such as favor the putridity of these matters.

Purulent puerperal fever is caused by whatever can produce inflammation of the womb, either individual or hygienic.

The treatment, very different in the beginning, becomes the same as soon as infection has taken place.

Women who are delivered by themselves, and in the best conditions, can be attacked by putrid or purulent puerperal fever. They have less to fear, however, from infection by the exterior passages than those who are assembled together.

Even when the results of infection are not found at the autopsy, it should not be concluded from this that none exist; they may have disappeared; they have always been found when they have been sought for perseveringly.

J. H. D.

*The necessity of prohibiting the manufacture of Chemical Matches made with ordinary Phosphorus.* By M. CHEVALIER, SENR., and M. ABEL POIRIER.

If there be, at the present time, a danger which threatens society, it is that which arises from the unlicensed sale of chemical matches prepared from ordinary phosphorus. In fact, the common people are perfectly aware of the use which can be made of them in committing the crime of poisoning. The following facts fully demonstrate this: In 1854, a man, tried at the Orleans Assizes, declared that if he had desired he could have poisoned his wife with chemical matches, for everybody knew their power and the difficulty of detecting the poison; but he had preferred to destroy her by dissolving along with beans a salt of copper, which had been detected in the analysis. In a trial held before the Criminal Court of Dordogne, the following extract is taken from the act of accusation against R.: "Some days later, M. J., having met R., asked him, in jest, if he had not yet killed N. No, he replied, but if he does not give me five francs on pay day, to indemnify me for the lost time that the wound which he gave me occasioned, I will poison him." The witness having replied that the pharmacist of—would not give him any poison, R. continued: "I will obtain it readily; I will poison all in the glass-house, because they beat me, make me work too hard, and do not give me anything to eat." He added that he would buy chemical matches for that purpose, from which he would dissolve the phosphorus in a bottle of water, and that if he had not time to escape after this poisoning, he would kill himself with another bottle of water prepared, before hand, in the same way.

These two facts, and they are not of rare occurrence, are positive proof that, among the lower classes, the improper use to which these preparations can be put is perfectly known. Such matches are, then, a source of danger, which it is necessary to remove, because everyone can become a poisoner at will, by procuring, without legal restraint, a poison more dangerous than arsenic.

Poisoning by phosphorus is, in our opinion, attended by the most dangerous consequences. In truth, we are acquainted with suitable antidotes for arsenic, copper, zinc, lead, and the vegetable alkalies, but we have no certain antidote for phosphorus. It is clear to us that phosphorus has supplanted arsenic, whose sale has been restricted, except in certain cases, where those who sell and buy the poison are obliged to fulfil certain conditions and formalities that render such sale of little danger. To prohibit the manufacture of chemical matches



of ordinary phosphorus, would prevent a large number of criminal poisonings, and would prevent many accidents and suicides.

Ordinary phosphorus will poison in small doses. Authors who have written on this subject have established the fact that individuals have died from not more than 15 to 20 centigrammes. It is, moreover, also established, in an incontestable manner, that *red* phosphorus has no action on animals.

In order to justify what we have stated as to the danger of ordinary phosphorus, we present a table of the poisonings which have taken place from 1824 to 1858, and which have come under our notice.

Years.	ACCIDENTS.			SUICIDES.			CRIMINAL POISONINGS.			TOTAL.
	Accidental poisonings. Preparations of Phos. Chemical Matches. Phosphorus Paste.	Preparations of Phos. Chemical Matches. Phosphorus Paste.	Preparations of Phos. Chemical Matches. Phosphorus Paste.	Preparations of Phos. Chemical Matches. Phosphorus Paste.	Preparations of Phos. Chemical Matches. Phosphorus Paste.	Preparations of Phos. Chemical Matches. Phosphorus Paste.				
1824			1						1	
1826	12								2	
1829			1						1	
1841							1		1	
1842								2	2	
1844		1	2				1		4	
1845	1				1				2	
1846				1					1	
1847		1						2	3	
1848					1				1	
1849		1							1	
1850			1						1	
1851	1	1			1			1	4	
1852										
1853		2						2	4	
1854		1		1			3	2	7	
1855		3	3	5	1		3	1	16	
1856				6			7	1	14	
1857		3		4			5	8	20	
1858				1			1		2	
	3	1	12	6	3	18	4	21	87	

From this table we see that from 1824 to January, 1858, we have the following figures representing the suicides, accidents and crimes effected by phosphorus, in various forms, viz.:

Suicides, 25; of which 18 were effected with Chemical Matches.

\*Homicides, 40; " 21 " " " "

Accidents, 22; " 12 " " " "

We remark, that the poisonings and suicides caused by Chemical Matches and Phosphorus Paste are increasing annually; rare from 1824-1850, they become more numerous, especially during the years

\*In the 40 cases of criminal poisoning, 21 persons died and 19 recovered.

1855, 1856, 1857; and on the other hand, the poisonings by arsenic are inversely in frequency with those by phosphorus, being most frequent from 1824 to 1850, and decreasing from that date until 1858.

We should not close this account without stating that if the manufacture of chemical matches is very dangerous as regards human life, it also presents very great danger when the destruction of property is concerned. Indeed, we are convinced that, if there was collected a general statement of the causes of fires, we should see that, for some years past, one-fourth at least, if not one-third, of these disasters were occasioned by chemical matches, either laid away carelessly or ignited from peculiar and accidental circumstances.

It becomes important to put a stop to poisonings by phosphorus, whether criminal or suicidal, by interdicting the fabrication of chemical matches out of ordinary phosphorus, and substituting in its stead red phosphorus, either by employing the formulæ in which the latter substance enters into the constitution of the paste, or by making use of Lundstrom's Swedish process, of which the Brothers Coignet are proprietors, consisting in the preparation of a paste that cannot be inflamed except by friction on a small board covered with red phosphorus.

The friction surface can be replaced by slips of paper, which, like postage stamps, are gummed on one side, and covered, by the aid of mucilage, with amorphous phosphorus on the other side.

It is readily seen, with reference to fires, that with matches thus prepared, having no phosphorus in their composition, but requiring friction on a slip covered with phosphorus, that the number of accidents must be diminished. Independent of the dangers arising from poisoning and fires, the employment of red phosphorus, on account of its harmlessness, presents yet another advantage, with reference to public hygiene. It is well known that the unfortunate workmen employed in the manufactories where phosphorus-matches are prepared, are liable to attacks of necrosis of the maxillary bones, and that they succumb after having experienced sufferings of the most intense character.

We could cite a large number of instances of these affections, which have been the subject of interesting works by Heyfelder, Roussel, Strolh, Boys de Loury, Bricheteau, Chevallier, Senr., Perry-Sedillot, Maisonneuve, and Lailler-Trélat. These savants have successively determined that the effects of this disease are so much the more terrible, as they are difficult to cure. According to their accounts, of sixty subjects attacked more than half succumbed. This number is truly not exaggerated, for both in Paris and in the country, there are many workmen who make chemical matches in the same place where their

family sleep, eat—in a word, live. How many accidents, how many diseases, how many mysterious poisonings result from this state of affairs, which would disappear by the employment of red phosphorus!

From the table we have given, it may be seen that phosphorus paste is a dangerous substance, which the criminal invokes to his aid for the accomplishment of his designs, and is so much the more convenient to him, since he can, without legal superintendence, procure this compound. It is, then, to be desired that the government, classifying phosphorus paste among poisonous substances, should proscribe its free sale, and force dealers to employ all the formalities which are exacted in the sale of arsenic; that is, that the sale should only be made to known persons, supplied with a certificate from the Mayor, or a Commissioner of Police of the place, and that the name of the purchaser should be placed in a register, in which the record of poisonous substances sold is preserved. As an additional precaution, the phosphorus paste might be mixed with soluble indigo, which, by the blue color it would communicate to the draught, would be an important sign in most cases to warn the victim of the presence of the poison.

If the opinions here stated were submitted to the consideration of the Academy of Sciences, and that learned Society should pronounce an opinion on this subject, a salutary interdiction would doubtless be the result, and the dangers which are unceasingly occurring would disappear. The evil increases with each day, and there is not a session of the Criminal Court in which phosphorus does not figure as the cause of criminal trials. It is probable, also, that all the cases are not known, and that a great number of crimes committed by this poison go unpunished. We believe that that which has prevented the substitution of red for ordinary phosphorus at the present time, is the slight difference in price; but this difference is so small that it cannot be placed alongside of the danger which results from the employment of ordinary phosphorus; and we steadfastly hope that this slight increase of price will not prevent the consumer from profiting by the advantages which red phosphorus presents as regards hygiene and public security.

L. H. S.

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*Animal Charcoal as an antidote for Cantharides.* By M. THOUERY.

It is generally known that charcoal possesses properties which are most interesting; that it removes most of the metallic salts from wa-

ter; combines with oil to such an extent that it cannot be separated by ether, and fixes certain of the vegetable principles. M. Thouery, in 1851 and 1852, made a series of experiments, from which he concluded that animal charcoal possesses real efficacy in combatting poisoning by cantharides. These experiments were 54 in number, and were performed on dogs. Lately M. Thouery has published the details of an experiment made on men.

During the night of 12th-13th of December, 1856, Antoine B. experienced very acute suffering, after having taken an infusion of centaurea from a vessel which contained powdered cantharides. Being called to see him, M. Thouery recognized it immediately as a case of poisoning by an irritant corrosive poison, but none of the liquid remaining for examination, he could not determine the nature of the poison ingested. He confined himself to the administration of general remedies, uniting, however, calcined magnesia and animal charcoal, and giving them in large doses. The condition of the patient did not seem to improve at first, but, after two days of intolerable suffering, relief was obtained and health was restored.

Thouery afterwards found that the poisoning had been produced by cantharides. He does not doubt, then, that animal charcoal largely contributed to the cure; and he regards this observation as confirmative, in a certain measure, of the results of his previous experiments. The only objection which we can adduce against this theory of Thouery is, that it does not necessarily follow from the fact reported.\*

L. H. S.

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## PROCEEDINGS OF SOCIETIES.

### *American Medical Association.*

The Eleventh Annual Meeting of this Association was held at the Smithsonian Institution, Washington, commencing Tuesday, May 4, continuing till Thursday evening following.

*First Day.*—Tuesday. The Association was called to order at 11

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\* We have translated this notice from the French, not because we consider the claims of charcoal as an antidote for cantharides to be established as a certainty, but with the view of calling attention to it, and obtaining from our own countrymen some additional facts bearing upon the subject of cantharides as a poison.

o'clock, when the chair was taken by the President, *Dr. Paul F. Eve*, of Nashville, Tenn. *Drs. R. J. Breckenridge*, of Ky., *D. M. Reese*, of N. Y., and *Henry F. Campbell*, of Ga., Vice Presidents, took their places upon the platform. The Secretaries, *Drs. R. C. Foster* and *A. J. Semmes*, were also present.

At the invitation of the president, *Rev. Byron Sunderland, D.D.*, invoked the blessing of Almighty God upon the Convention.

The Report of the Committee of Arrangements being called for, *Dr. Harvey Lindsley*, of Washington, Chairman of that Committee, then delivered an address of cordial welcome to the members of the Association, in behalf of the medical profession of the District of Columbia.

The roll of delegates already registered was then read. The following list gives the states represented, and the number of each delegation: Maine 2, New Hampshire 8, Connecticut 18, Vermont 1, Massachusetts 40, Rhode Island 5, New York 73, New Jersey 25, Pennsylvania 66, Delaware 4, Maryland 24, District of Columbia 25, Virginia 8, North Carolina 8, South Carolina 10, Georgia 12, Alabama 1, Kentucky 9, Tennessee 7, Indiana 6, Illinois 12, Michigan 3, Iowa 3, Missouri 4, Ohio 14, California 1, American Medical Society of Paris 1, U. S. Navy 2. Other members were announced at different times during the day, and when the association adjourned there were *four hundred and six* names registered. (This number was greatly increased the next day by the arrival of other delegates, making this meeting of the association one of the largest ever held.)

*Dr. Lindsley*, chairman of the committee of arrangements, reported that it had been decided to hold but one business session each day, from nine A.M. until three P. M. He also announced that the President of the United States would be happy to receive, with those members of the association who might call at the Executive Mansion, at eight o'clock in the evening, such ladies as may accompany them.

On motion, the association confirmed the appointment of *Dr. J. M. Snyder* to fill a vacancy in the committee of arrangements.

On motion, it was decided that a nominating committee of one from each State represented should be raised, the delegation of each State selecting its representative therein. A brief discussion upon the propriety of permitting the army and navy delegations to appoint separate members of this committee, was decided by the president in favor of their having the privilege, and the decision was sustained by the association.

There was then a recess of fifteen minutes, during which the different

delegations assembled in various parts of the lecture-room to choose their representatives in the committee. After the meeting was again called to order, the secretary read the list as follows:

*Committee on Nominations.*—Job Holmes, Maine; George H. Hubbard, New Hampshire; P. Pineo, Vermont; Ebenezer Alden, Massachusetts; Ashbel Woodward, Connecticut; J. Mauran, Rhode Island; H. D. Bulkley, New York; J. P. Colman, New Jersey; Isaac Hays, Pennsylvania; H. F. Askew, Delaware; S. P. Smith, Maryland; Noble Young, District of Columbia; A. S. Payne, Virginia; W. H. McKee, North Carolina; Wm. T. Wragg, South Carolina; Joseph P. Logan, Georgia; J. T. Hargraves, Alabama; R. J. Breckenridge, Kentucky; J. Berrian Lindsley, Tennessee; Wm. M. McPheeters, Missouri; George Mendenhall, Ohio; Calvin West, Indiana; A. H. Luce, Illinois; Zina Pitcher, Michigan; Thomas O. Edwards, Iowa; O. Harvey, California; and George Clymer, United States Navy.

On motion, Drs. Bohrer, of D. C., Flint, of New York, and Hargraves, of Alabama, were appointed by the president a committee on special essays.

*Dr. David M. Reese*, of New York, presented and read a written apology for having recommended for a position in Blockley Hospital, Philadelphia, Dr. McClintock, who had been expelled from the association for a violation of the code of ethics, &c., as adopted by the Association, which was as follows:

**To the Officers and Members of the American Medical Association:**

The undersigned, one of the Vice Presidents of the American Medical Association, having, during the interval since our last annual meeting, certified to the professional fitness for the charge of Blockley Hospital, at Philadelphia, of an individual who had been expelled from this body for a violation of our code of ethics, after consulting with the other officers, and yielding to the advice of other personal friends, desires to say to the Association now assembled:

1st. That, in giving said certificate, he was prompted solely by motives of sympathy and humanity to a fallen brother, who had been a personal friend prior to his offence; and that he did not realize, acting under the impulse of the moment, that his individual act could be construed by the profession as indicating hostility to his brethren.

2d. That while his own mind is clear that his certificate contained only the truth, and that, under his peculiar relations to the party concerned, he could not withhold his certificate, of medical qualification, consistent with conscience and duty, yet he is ready to concede that he had no abstract right to relieve the party from the censure of the association until this body had restored him to his fellowship.

3d. That, so far from intending any disrespect to the association, or

to its act of discipline, the undersigned had publicly sustained and defended both. He therefore disclaims the inference from his certificate, that he intended to recommend to a high professional office a man whom the association had excluded, and thereby nullify the action of this body.

And, finally, with these statements and disclaimers, the undersigned, while retaining his own opinion of the rectitude of his motives, and of his duty, under the peculiar circumstances of the case, is nevertheless prepared to defer to the judgment of those whom he knows to be his friends, that he erred in doing what he had no right to do, in view of his official position in this association, and is hence called upon to offer this explanation and apology to his brethren.

(Signed,)

DAVID M. REESE.

On motion of Dr. Condie, of Philadelphia, the apology was accepted, and ordered to be entered upon the minutes.

Dr. Bryan, of Philadelphia, who had also recommended Dr. McClinck, made a verbal adoption of Dr. Reese's apology, the reception of which was warmly debated. Dr. C. C. Cox, of Maryland, opposed, and Dr. Condie advocated the reception. Dr. A. B. Palmer, of Michigan, moved the previous question on a motion to refer the subject to a committee, which was lost. The apology of Dr. Bryan was then accepted.

The President, *Dr. Paul F. Eve*, then delivered his annual address.

Congratulating the Society upon the favorable circumstances under which it met; in a hall dedicated by a generous foreigner to the promotion of science; in the presence of that towering monument designed to commemorate the worth of him ever enshrined in the hearts of his countrymen; surrounded by the glorious recollections constantly associated with this government; and before the great men and assembled wisdom of the nation; it becomes us, he said, to discharge the important duties which have called us together, with honor to ourselves and benefit to our profession.

The rise, progress, and present condition of this association he reviewed in a few words. The purposes of the association were set forth, the manner adopted to accomplish the desired ends were stated, and the results of the ten yearly meetings were summed up. In doing this, the president recapitulated the subjects of the various works which had appeared in its published Transactions. Referring to these as an index of the varied contributions of the profession to the progress of medical science, he considered that they were a sufficient answer to the taunting questions asked in 1820, "What does the world yet owe to American physicians and surgeons?"\* In 1854, the editors of the *British Association Medical Journal*, in speaking of these Transactions, replied most honorably to the sneering demand of their countrymen, giving

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\* Sidney Smith, in *Edinburgh Review*.



great praise to the scientific and practical manner with which the various reports of committees were performed. Upon such disinterested evidence, such full, free, and candid confessions, and from such a source, may rest the claims of the American Medical Association for proof of the benefits it has conferred on medicine. A most active and powerful agent in disseminating useful medical knowledge on this continent, it is highly probable that no similar institution has ever been more successful in carrying out its chief object—the promotion of science—than the one now assembled in this hall.

It has done something, perhaps all it could under the circumstances, to elevate the standard of medical education. An influential motive calling forth this organization, was the proposed attempt to correct the defects in the plan of instruction and conferring the degree then generally adopted in our medical colleges; and one of the first resolutions passed, even when the profession had assembled in convention, was the creation of a committee to report at an early day on these exciting subjects. Improvement in the system of teaching medicine, and a change in the power granting the diploma, if not reformation in the schools, have ever since agitated the profession and consumed a considerable portion of the time of our sessions. The only power to control the economy of the colleges which this body possesses, is exclusively moral, advisory, or recommendatory, and not legislative or legal; and while it may be true that no set of resolutions presented by the several committees have been fully carried into effect, still it cannot be denied that important changes calculated to advance medical education have nevertheless been made. At least, seven professors now compose the faculty in all our schools, the one or two exceptions to this being in those in which the science is taught nine consecutive months. Not less than a period of four full months' instruction now constitutes a course of lectures, and even this is exceeded in most of the institutions. But one annual course is now delivered with scarce an exception, and an interval is thus allowed for reading or private instruction. The association has clearly defined what shall be taught. It has inquired into the practical operations of all the colleges in the land; scrutinized the general condition of medical teaching in every state; compared it with that of the most enlightened nations; called attention to preliminary education, and declared what it ought to be; advised higher requisitions and a more rigid examination for obtaining the degree; and has, by its free discussions and oft-reiterated expressions in regard to the business of teaching and regulating the schools, undoubtedly prevented greater abuses. It has never ceased to urge at every meeting the pressing necessity for a more thorough preparation and greater attainments in candidates for the honors of the profession.

This subject, gentlemen, is one upon which you will be called to take action. A committee, chosen at Nashville, is to report here on medical education. It is composed of gentlemen from different sections, who, while familiar with the systems of teaching medicine in our country, are yet disconnected from all the colleges. It would seem to be a desirable object to settle at this meeting the future relation of

the schools to this association. Our sessions then might become less educational in character, and hereafter more scientific. And at the present stage of our proceedings, after all that has been said and done on this subject, the time has surely arrived for a decision. I cannot believe the colleges have any interested motives before this body; they of all others should be the last to oppose a more thorough cultivation of medicine, and ought by such a course to become unworthy of their trust, and unwelcome members of a great national congress of physicians, whose grand design is to promote medical science. We have now reached a period in our history when this voluntary association is to determine what medical organizations, be they state, county or city societies, hospitals, boards or schools, are entitled to be represented in its meetings. It alone can, of course, prescribe the requisitions for its own delegates. If created to improve and advance medical education, (and this is in accordance with its own expressed declarations,) then it is quite certain the schools must be controlled. It has but to speak on this point, and it will be obeyed; for it is now too late for any physician to oppose, or any medical college to set at defiance, the moral power of this body.

As to the first object of an ethical nature over which the association designed to exert its influence, that of enlightening and directing public opinion in respect to the duties, responsibilities, and requirements of medical men, we are free to confess little or nothing has been done. Nor is there much probability that any great change will soon, if ever, be effected. The work itself, in the very nature of things, is utopian. How is it possible to enlighten or direct the public mind on the economy of a science which it practically denies to exist? We ought to recollect that the time has not long passed since grave professors in our colleges signed certificates recommending nostrums; or what was done even last year in London, at Middlesex Hospital, by its regular surgical staff? these reminiscences, however unpleasant, may serve somewhat to moderate our indignation against those who would insult the profession, or who entertain a very low estimate of the scientific acquirements of physicians, even at the present day. The profession must first fully comprehend its duties and responsibilities, and the proper and special qualifications for the practice of medicine, before any attempt can succeed to get the public to appreciate what these are, or acknowledge the ethical impropriety of employing secret remedies. If we make no distinction between the regular and irregular practitioner, between the physician and the proprietor of a nostrum, we are alone censurable that two such opposite characters are so generally confounded by the community. Until we are more honest, more united, truer to ourselves and our calling, and cultivate a proper *esprit du corps*, in vain is it to expect a change in public opinion regarding medical science. To prevent disease or relieve the sick is a most benevolent and honorable vocation, and when one conceals for selfish ends a valuable medicine, he ceases to be honest and is void of philanthropy; for, by attempting to place a moneyed valuation upon pain and life, he becomes a trader in human physical sufferings; he estimates in dollars and cents the groans and tears of his fellow creatures.

He may profess what he pleases, but his piety is not of the Bible, and has not a jot or tittle of Christianity about it, for that teaches us to love our neighbors as ourselves. Eschewing politics, and seeking no aid from state or church, we should become a law unto ourselves, or rather act above all law save the divine, since it is quite certain we alone must protect the honor of the medical profession. And thank God, standing this day, the proudest of my life, before this goodly assembly, and at the capital of our common country, I can announce that here, to the American Medical Association, it may with safety be forever confided. By its recent acts, proclaimed throughout the length and breadth of this wide domain, this body has denounced all fellowship with irregular practices, and erected a barrier impassable to honor and respectability.

Having learned wisdom from a more careful examination of the statistics and results of deformities after fractures, the question occurs if we have not ourselves unwittingly made patients expect too much from remedial agents. Disease in itself is a destructive process, which we can only prevent or relieve; and as, of course, we cannot create or restore, should we not, therefore, be more chary of the little word "cure?" The monument erected to Ambrose Paré, the father of surgery, bears the modest inscription, in reference to the wounds he treated, "*Je les pansay et Dieu les guarit.*"\* Empirics may boast that they cure, and doctors of divinity may sustain them, but the physician knows that it is God who healeth all our diseases.

On that branch of ethics which relates to ourselves—that of encouraging emulation and concert of action among physicians, and fostering friendly intercourse in the profession—the association has been eminently successful. It has far exceeded the most sanguine expectations in overcoming all opposition; in creating an admirable code, now adopted everywhere; in organizing State, County, and City Societies; in bringing together physicians from the remotest parts of our immense territory; in awaking the whole profession to its true interests; and in blending us into a common harmonious fraternity. Without law or authority, but by moral suasion have we been united as one man, and possess this day the power to be felt over this entire continent. There never has been a more propitious period for medicine in America; never greater evidence of vitality and extended usefulness in our ancient and benevolent calling; never better feeling or more confidence of success than now by our united effort to do good in the great cause of suffering humanity.

We have seen, gentlemen, how much this association has achieved in its infancy to elevate honorable medicine. A wide field for scientific investigation is before us; much territory still remains to be redeemed; the wilderness is yet to blossom as the rose, and the leaves to be gathered for the healing of nations. The hygienic condition of the nation, of such immense interest to our people—that first, all-important question, ever before the profession—the prevention of disease—is to be improved. We are to search after truth, and when found it is to be

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\* Ancient French.

generously applied for the good of mankind. The work is a self-sacrificing and benevolent one, but it is grand and sublime, even God-like; for it has to do with pain and disease, life and death; and we rejoice to know that, whenever or wherever called upon, the members of our profession and of this association have never failed in any duty, and have been faithful to the end. Yea, many of them have stood alone between the living and the dead, and cheerfully laid down their lives to stay the pestilence and destroyer.

The very waters at our feet as they sweep onwards to the ocean, pass in sight of a city where three years ago no less than four-fifths of our profession in that community, swelled, too, as their ranks had been by volunteers from this body, fell manfully contending with disease and death; and on a late occasion, when one of our steam-packets, having been injured by a collision, went down in an instant, carrying every soul on board into the depths of the ocean, among the passengers was a member of this association. To the inquiry, Where was he during the heart-rending scenes of a sinking ship, freighted with human lives? promptly came the affecting and sublime eulogy from one who knew him well, that so long as a woman or child remained unprotected for he\* never left the ill-fated Arctic. How near akin was his gallant spirit to that of him who, during a subsequent and similar occurrence, after seeing every woman and child committed to his care safely rescued from his foundering bark, after sending the last parting message to his family, and discharging every duty without one lingering ray of hope, calmly assumed his commanding position on the deck of his vessel, and as she glided from under him into the yawning billows, instinctively uncovered to meet his fate and his God. While the wild waves are sighing a requiem over the unseen burying places of these illustrious dead, the benedictions of a grateful people are continually ascending over the forty graves of the martyred heroes of Norfolk. These were our companions, who died in the noble service of that calling, to promote the best interests of which has assembled us together.

Gentlemen of the American Medical Association, we have convened for important purposes; great events are before us; the interests of humanity are here; the hopes of the profession are in this meeting; the eyes of the medical world are upon us. May we then so act in view of surrounding circumstances, that "the skill of the physician shall lift up his head, and in the sight of great men he shall be in admiration."

On motion, the thanks of the Association were voted to the President for his able and instructive address, a copy of which was solicited for publication.

*Dr. Grafton Tyler*, of Georgetown, D. C., chairman of the committee on prize essays, reported that the essays received were three in number, each of which had been examined with great care—considering, first, the intrinsic merits of each essay, and then their merits in relation to each other. The first prize was awarded to "an essay on the clinical

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\* Professor Carter P. Johnson, of Richmond, Virginia.

study of the heart sounds, in health and disease," bearing the motto, "*Clinica dinice demonstrandum.*" The second prize was awarded to "an essay on vision and some of the anomalies as rendered by the ophthalmoscope," bearing the motto, "*Dux hominum medicus est.*"

Dr. Tyler then proceeded to open the sealed envelopes bearing the above-named mottoes, and containing the names of the writers of the essays. The first was written by Dr. Austin Flint, of Buffalo, New York, and the second by Dr. Montrose A. Pallen, of St. Louis, Missouri. This is the second time Dr. Flint has won this distinguished honor, and the third time that it has been awarded to Buffalo since the association organized, eleven years ago.

On motion, the report of the committee was accepted and adopted. Doctors Flint and Pallen were then invited to give *resumés* of their essays, which they did.

Dr. Lindsley, from the committee of arrangements, then presented an invitation from Dr. Nichols to visit the Insane Asylum, and another from Rev. Mr. McGuire to visit Georgetown College.

On motion of Dr. Hamilton, of New York, these invitations were accepted, and the thanks of the Association were returned therefor.

On motion of Dr. Lindsley, the Hon. Doctors Fitch, of Indiana, Chaffee, of Massachusetts, Clawson and Robbins, of New Jersey, and Shaw, of North Carolina, members of Congress, and Dr. Peter Parker, ex-commissioner to China, were elected "members by invitation," and requested to participate in the proceedings of the association.

On motion, Assistant Surgeon Frederick A. Rose, of the British navy, who so nobly volunteered his services on board the United States ship *Susquehanna*, at Port Royal, and who came in her to New York, devoting himself to the sick crew, was unanimously elected a "member by invitation," and invited to take a seat upon the platform. [Applause.] It was announced that Dr. Rose had left the city.

Dr. Francis G. Smith, of Philadelphia, chairman of the committee on publication, made his report, showing the expense of publishing the annual volume.

Dr. Caspar Wister, of Philadelphia, presented his annual report of receipts and expenditures, showing a balance on hand of \$806. Accompanying the Treasurer's report was a resolution providing that the back volumes on hand, when over two years old, shall be sold at two dollars a volume, and that volumes V, VII, VIII, and IX, of which there are a surplus, be sold at \$5 a set to any member.

The special committee on medical education, of which Dr. G. W. Morris, of Philadelphia, is chairman, were called upon to report.

There was no response; and, on motion, the subject was referred to the committee on nominations.

*Dr. A. B. Palmer*, chairman of the committee on medical literature, asked leave to defer his report until Wednesday, at 10 o'clock, which was granted.

A report was made by the committee on nominations, which was accepted, and the association then elected the following

OFFICERS:

*President*, *Dr. Harvey Lindsley*, of Washington City.

*Vice-Presidents*, *Drs. W. L. Sutton*, of Kentucky; *Thomas O. Edwards*, of Iowa; *Josiah Crosby*, of New Hampshire, and *W. C. Warren*, of North Carolina.

*Secretary*, *Dr. A. J. Semmes*, of Washington City.

*Treasurer*, *Caspar Wister*, of Philadelphia.

On motion, *Drs. Flint*, of New York, *Gross*, of Pennsylvania, and *Gibbes*, of South Carolina, were appointed a committee to conduct the President elect to the chair.

*Dr. Lindsley* having been introduced to the association by the retiring President, *Dr. Eve*, made a few pertinent remarks, acknowledging the honor as the highest he had ever been called upon to receive, and the highest that any medical man in America can receive. Unaccustomed to preside over so large a body, and having had but little practice in presiding over smaller assemblages, he must throw himself upon the forbearance of the association, and look to the members for support in the discharge of his official duties.

On motion, the thanks of the association were voted to the retiring officers for the able and impartial manner in which they have discharged the duties of their respective offices.

On motion, the ex-presidents of the association present were invited to take seats on the platform.

The committee on medical topography and epidemics was called by states. A letter from a member from Maine stated that he would report next year. There was no response from New Hampshire, Vermont, Rhode Island, Connecticut, or Massachusetts. *Dr. Smith*, of New Jersey, read an able report on New Jersey, and the association then adjourned 'till Wednesday morning, nine o'clock.

*Second Day.*—The association was called to order by the President, *Dr. Harvey Lindsley*; and *Dr. A. J. Semmes*, one of the Secretaries, read the minutes of the first day's proceedings; which were adopted.

On motion of *Dr. Watson*, of New York, *Dr. Delafield*, of New York, one of the first officers of the association, was invited to take a seat on the platform.



On motion of *Dr. Atkinson*, of Virginia, an amendment to the constitution was received, providing that no person shall be recognized as a member or admitted as a delegate at meetings of the association who has been expelled from any state or local medical association.

*Dr. Atkinson* supported the adoption of this amendment, contending that the admission of any gentleman who has been rebuked by any state or local association, and is under its ban, is a rebuke to that association. He urged the acceptance of the amendment, and trusted that until the constitution be so amended it shall be the rule of action.

*Dr. Bond*, of Maryland, asked to have the qualifications requisite for a seat read. He desired information as to the ethical qualifications for membership.

*Dr. Watson*, of New York, stated that, as by the constitution it was necessary to have amendments lie over one year, this was not a question for present debate.

The President decided that debate was not in order, and the amendment was accordingly laid on the table for consideration at the next annual meeting.

*Dr. Boyle*, chairman of the committee of arrangements, proposed the names of *Doctors Huff and Knight*, who were elected "members by invitation."

*Dr. A. B. Palmer*, of Michigan, chairman of the committee on Medical Literature, then made his report. After noticing in detail the periodical literature of the country, the spirit manifested in the editorial department of our medical journals is characterized as being (with a few exceptions) liberal, honorable, courteous, and just; and the feelings of fraternity are generally cordial and warm. Differences of opinion must be expected occasionally to exist, and different interests will sometimes come in collision; and, while this is the case, the imperfections of our common nature will be likely to produce some unpleasant results. But the bond of union produced by an interest in a common cause, and that cause so noble as the advancement of a great and benevolent profession, should certainly, as it usually does, smooth down asperities, and preserve that courtesy and kindness which ever should exist between gentlemen and brethren. From the contentions existing between the different portions of our common country, and which have so deeply affected the political, the religious, and the literary periodicals, the medical journals, with scarcely an exception, have kept aloof; and it is devoutly to be hoped that the influence of this portion of the press, combined with the harmonizing power of this association, may ever be exerted for the promotion of union both of hearts and states.

The American medical literature of the past year was then reviewed, and said to have been of a creditable character, although it could not be denied that the fruits of the profession are more practical than scientific. The new American Pharmaceutical Association was noticed



and complimented. The works auxiliary to medical science, issued by the federal government, were alluded to, and the example of the army and navy surgeons in taking meteorological and other observations commended to the brethren in civil life. The theses on the Parish-will case were noticed as exhibiting the pre-eminence of American over British physicians. Prof. Agassiz and the support of his labors by the American public came in for a share of praise, and several improvements in medical instruments were mentioned.

In closing his report, *Dr. Palmer* presented the following *resumé* of the leading positions taken by the committee: The periodical literature of the United States is regarded as possessing great abundance, variety, richness, and general excellence; and, though still possessing defects, is constantly improving. Many of the contributions are of great weight and value, indicating an enterprising and industrious profession. Serious defects are regarded as existing in the review department, arising mainly from the fact that the income of the journals will not justify pecuniary disbursements for literary labor, and editors necessarily engaged in other pursuits cannot command the time, if all possessed the ability, to do the work thoroughly and well.

A few well-supported journals in place of the many, but ill sustained, might tend to correct this evil; but the multiplicity of local journals is considered as peculiarly beneficial, by collecting from a greater variety of sources a larger number of facts, and developing the powers of a larger number of writers.

The interests of this part of our literature demand a prompt and liberal pecuniary support.

The number of original American medical works is increasing, and their character is improving, and, in some respects, particularly in practical utility, they will not suffer in comparison with those of Europe; yet serious imperfections exist, and great improvements are demanded. Great and permanent improvements in medical, as in general literature, must be gradual, depending more upon the advancement of education, of taste, and intelligence than upon any specific measures which may be adopted. Still, various particular measures, such as the permanent writing of medical theses during professional pupillage, and keeping systematic records of cases when in practice, would do very much in hastening an improvement. But for the greater perfection of our literature, we must wait the further development of our country, and for those changes of time and circumstances which shall produce a larger number of devoted savans and scholars, placing them in situations where a variety of absorbing pursuits shall not prevent the concentration of great talents upon a comparatively limited range of subjects.

On the subject of the reprint of foreign works, it is held that, while the free circulation of the best class of these works among us increases the knowledge and improves the taste of the masses of the profession, it does not interfere with the production of the higher order of original works; and that the moral obligation of our government to join with Great Britain in the enactment of an international copy-right law is by no means clearly established.

In conclusion, the committee would say, that if, as sentinels placed upon the walls of our Medical Zion, they are asked in relation to its literature, "*What of the night?*" the response must be, "*The morning cometh!*" The darkness which has hung over that literature is breaking away. There is at least dawning in the east, and though the chariot of day may roll on but slowly, the full effulgence will come at last.

On motion, the report was accepted and ordered to be published.

On motion, Dr. Bozeman, of Alabama, was elected a "member by invitation."

*Dr. James R. Wood*, chairman of a special committee on medical education, made a lengthy report, discussing—1st, primary medical schools; 2d, the number of professorships in medical colleges; 3d, the length and number of terms during the year; 4th, the requisite qualifications for graduation; 5th, such other subjects of a general character as to give uniformity to our medical system. Having reviewed these propositions at length, the committee have arrived at the following conclusions:

*First.* Primary medical schools should be encouraged; but, as office instruction will continue to be sought by students, practitioners should either give them necessary advantages of demonstrations, illustrations, and recitations, or if not prepared to do so, they should refer them to such primary schools or medical men as will give them proper instruction.

*Second.* The number of professorships should not be less than seven, viz: a Professor of Anatomy and Microscopy, Physiology and Pathology, Chemistry, Surgery, Practical Medicine, Obstetrics, and Materia Medica.

*Third.* There should be but one term annually, which should commence about the 1st of October and close with the March following, thus lengthening the term to six months. The commencement of the term, in October, should be uniform in all the colleges throughout the country. During the session there should never be more than four lectures given daily.

*Fourth.* The qualifications for graduation, in addition to those now required by the schools, should be a liberal primary education, and attendance upon a course of clinical instruction in a regularly-organized hospital.

In order to give our medical colleges an opportunity to consider the recommendations here advanced, and that this body may have the advantage of their wisdom and their mature views, before any definite action is taken upon them, your committee submit to the association the following resolutions:

*Resolved,* That the several medical colleges of the United States be requested to send delegates to a convention to be held at \_\_\_\_\_ on the \_\_\_\_\_ day of \_\_\_\_\_ for the purpose of devising a uniform system of medical education.

*Resolved*, That the present report of the special committee on medical education be referred to such convention for its consideration.

*Resolved*, That said convention of delegates from the several colleges of the United States be requested to submit to the meeting of this association, in May, 1859, the result of their deliberations.

On motion, the report was accepted and referred to the committee on publication, the accompanying resolutions being laid on the table.

The committee on nominations reported Louisville, Ky., as the place of meeting in 1859, and nominated Dr. S. S. Bemis, of that city, as second secretary. They also nominated the following standing committees:

*Committee on Publication*—Dr. Gurney Smith, Pa., chairman; Drs. Caspar Wister, Pa.; A. J. Semmes, D. C.; S. M. Bemis, Ky.; S. L. Hollingsworth, Pa.; S. Lewis, Pa.; H. F. Askew, Del.

*Committee on Medical Literature*—Dr. John Watson, N. Y., chairman; Drs. L. A. Smith, N. J.; C. G. Comegys, Ohio; R. W. Gibbs, S. C.; W. M. McPheeters, Mo.

*Committee on Prize Essays*—Dr. J. B. Flint, N. Y., chairman; Drs. M. Goldsmith, N. J.; H. Miller, Ky.; Calvin West, Ind.

*Committee on Medical Education*—Dr. G. W. Norris, Pa., chairman; Drs. A. H. Luce, Ill.; E. R. Henderson, S. C.; G. R. Grant, Tenn.; T. S. Powell, Ga.

*Committee of Arrangements*.—Dr. R. J. Breckenridge, Ky., chairman; Drs. G. W. Ronald, B. M. Wible, D. W. Goodall, D. D. Thompson, N. B. Marshall, G. W. Burglass, R. C. Hewett, and A. B. Cook, all of Kentucky.

The report was accepted, the nominations were confirmed, and the committee received permission to sit again.

On motion of *Dr. Hamilton*, of Buffalo, the resolutions attached to the report of the committee on medical education were taken from the table.

*Dr. Watson* moved the appointment of a committee to consider the resolutions and report to-morrow morning.

*Dr. Bond* thought that the subject had already been sufficiently discussed. It had been brought up year after year, occupying much of the time of the association, and he trusted that it would receive immediate consideration.

*Dr. Davis*, of Illinois, wished to have the subject made a special order for some time prior to the adjournment of the convention.

*Dr. Rogers*, of New York, wished to have the report printed, that all might have an opportunity of examining it and the propositions which it embodies.

*Dr. Wood* defended his report as a conservative report, just alike to the profession and to the laymen. He did not believe that any

good could arise from a further discussion of the subject. None had arisen in years past—none could arise now. It was a bill of conciliation and of adjustment. Laymen of the profession merited censure for sending men to college not qualified for the profession, and colleges merited censure for sending men out not qualified to practise the healing art. He approved of the motion of Dr. Watson, that the report be submitted to a committee of delegates from colleges.

A debate on a call for the previous question on Dr. Watson's resolution then ensued, in which several gentlemen joined, each one apparently having a different idea of "parliamentary law," and neither of them displaying a very correct knowledge of the subject. It was remarked by an old member of the association that "parliamentary discussion must be a *local epidemic*."

The report was finally referred to a select committee, to be composed of one member from each delegation representing a medical college or school.

On motion, thanks were voted to the late secretary, Dr. Foster; and his successor, Dr. Bemis, took his seat.

Dr. Hamm, of Pennsylvania, moved a suspension of the rules for the purpose of reconsidering the resolution of Dr. Condie, accepting the apology tendered by Dr. Bryan. The vote upon suspending the rules stood—ayes 111, noes 82. The President ruled that a two-third vote was necessary, and decided the question as lost.

An appeal was taken from the decision of the chair, and the decision was not sustained. A vote was then taken, and the resolution accepting the apology of Dr. Bryan was reconsidered by a vote of—yeas 142, nays 70.

An attempt was then made to connect the resolution with that accepting the apology of Dr. Reese, but it was decided that it would first be necessary to dispose of the resolution reconsidered, and it was laid on the table.

A member from New Jersey hoped that the McClintock case would be brought fairly and squarely before the association, and that gentlemen would be made to "face the music." It was useless to cloak it, or to attempt to dodge the responsibility.

Dr. Beck, of Indiana, moved an indefinite postponement of the whole subject.

Other gentlemen rose to speak, but the President decided that a motion to postpone was not debatable.

Dr. Jewell rose to a point of order, and protested against being "gagged." [The President here reversed his decision.] Dr. Jewell

said that the action of the day previous was regretted, and that gentlemen had acted hastily. Many, who at first sight voted to accept the apologies, now regretted having done so.

*Dr. Hamm*, of Philadelphia, explained the action of the Philadelphia County Medical Society, and began to read a remonstrance from it, which he desired to incorporate into his speech.

*Dr. Biddle* objected to the reading of this remonstrance, as a violation of plighted faith.

It was here moved and decided that the association go into "committee of the whole," and *Dr. Edwards*, of Ohio, was called to the chair.

A member hoped there would be no rules of order except what the chair would prescribe.

*The Chair*. "I will prescribe enough." [Laughter.]

Another member inquired if it would be proper to discuss the remonstrance? *The Chair*.—"A gentleman who has the floor can discuss anything on the face of the earth. [Laughter and applause.]

The remonstrance was then read. It was a long document, giving a detailed account of the recommendation by *Dr. Reese* of *Dr. McClintock* for a position in Blockley Hospital, after the last-named gentleman had been guilty of selling quack nostrums, and had thus committed an offence against the ethics of the profession.

*Dr. Humphries*, of Indiana, moved that each member of the committee of the whole be restricted to five minutes, allowing *Dr. Reese* whatever time he wished to defend himself in.

*Dr. Phelps* showed that a ten-minute rule was now in force. *Dr. Cox* moved, as an amendment, to make the time fifteen minutes, which amendment was lost, and the original motion of *Dr. Humphries* was then carried.

*Dr. Reese* then ascended the platform, and made a statement of his position from the commencement of the controversy. He considered his apology of the day previous a satisfactory one, but was willing to make it more so if it was objected to. He had not brought the subject before the association, but had been given to understand that, if he made the apology which he had made, the remonstrance would not be offered. During his remarks there was a demand for the reading of the apology, which was read, as it is in yesterday's proceedings.

It was moved to refer the apology and remarks of *Dr. Reese* to a special committee of seven, to report to-morrow morning. *Dr. Atlee*, of Lancaster, and other gentlemen urged delay.

*Dr. Payne*, of Virginia, asked permission to relate an anecdote.

He was reminded of two old Quakers, one of whom kept a store, while the other practised law; both were members of a temperance society, and it was generally thought that the lawyer did not always keep his pledge. One wet cold day, a negro man went to the Quaker's store, and the good man gave him a drink of brandy. This was brought to the notice of the temperance society, and it was decided that the offender should be severely reprimanded. The lawyer was selected to carry out this sentence, and taking the storekeeper into the woods, he thus addressed him: "Jeemes, thee should be more circumspect." [Continued laughter.]

*Dr. Condie*, of Philadelphia, wished to say that he had offered the resolution in good faith, but he denied that he had made propositions to the gentlemen from New York, or that the Philadelphia committee had.

*Dr. Bowling*, of Tennessee, said that there was no question of veracity. Gentlemen on either side were correct. He had heard of misunderstanding, and of probable difficulty, and had earnestly endeavored to arrange it. He had told *Dr. Reese* that if he made an apology the remonstrance would not be presented, because he had understood gentlemen from Pennsylvania to say so. But he was now aware that those gentlemen did not in any way pledge the Philadelphia County Medical Society.

*Dr. Condie* hoped that a committee would be appointed to give the subject a careful consideration.

*Dr. Cox*, of Maryland, after complimenting *Dr. Reese* as an able practitioner and an experienced editor, whose labors have been of great value to the profession and to the country, said that he did not consider the statement full and satisfactory. The offence was not an unpardonable one, but the violation of that code of ethics which is the life of the profession, should be properly atoned for. [Applause.] The apology was good enough, but it carried as its sting the mental reservation which *Dr. Reese* persists in. Nay, in his journal, issued simultaneously with this meeting, and circulated here, he says: "Having done right in certifying to the labors of our quondam friend *McClintock*, we resented the unmerited censures of our Philadelphia brethren." This completely stultifies the effect of the apology.

*Dr. La Roche*, of Philadelphia, explained his action and that of the Philadelphia County Society in the matter.

*Dr. Paine*, of Vermont, *Dr. Cox*, and *Dr. Bond* made some rather sharp remarks. *Dr. Davis*, of Massachusetts, thought that *Dr. Reese* had but to admit that he had done wrong, and ask pardon without any mental reservation.

*Dr. Reese* said that he had intended to make a satisfactory apology. Such was his earnest wish and desire, and he wished to frankly state that he had no mental reservation, neither did he attempt to conceal anything. He made the statement which had been read without reservation and without evasion.

*Dr. Condie* expressed his entire satisfaction, as did numerous other gentlemen, several crossing to where *Dr. Reese* was sitting and shaking hands with him.

The committee of the whole then rose, and the Chairman reported to the President that the committee had heard and discussed the apology of *Dr. Reese*, and that they considered that it was "ample, full, complete, and satisfactory."

On motion, the report of the committee was received and adopted.

The case of *Dr. Bryan* then came up, when it was suggested that his apology should be in writing; he expressed a willingness to make one as ample as was that of *Dr. Reese*.

*Dr. Reese* then drafted an apology, but several gentlemen insisted that he should insert the word "regret." *Dr. Reese* declined, stating that no gentleman would apologize for that which he did not regret, and that he would never be dictated to by any gentleman, even if the prison door stood open on his right hand, and the stake was at his left hand.

*Dr. Wood* stated that he had been with the side which had offered the apology, but he did not consider the apology complete without the insertion of the word "regret."

*Drs. Bonner, Clark*, of New Jersey, *Hard*, of Illinois, *Parker*, of New York, and other gentlemen, participated in an exciting debate on the necessity of having the word "regret" inserted.

*Dr. Reese* added the following sentence—"and regrets that he has incurred the displeasure of his brethren." This was not favorably received.

*Dr. Boyle*, chairman of the committee of arrangements, here announced that arrangements had been made by which delegates who had purchased tickets on their way to the convention over the following roads could return free by exhibiting their cards of membership: Pennsylvania, Wilmington and Manchester, Illinois Central, North-eastern South Carolina, and Richmond and Petersburg.

The apology of *Dr. Reese* was again taken up and discussed with spirit and feeling. At length he presented the following:

"The undersigned regrets that he certified to the professional qualifications for Blockley Hospital, Philadelphia, of an expelled member



of this body, and hereby offers this apology for his departure from the ethical code."

This was received with loud applause, and, on motion of *Dr. White*, accepted as an ample and satisfactory apology.

*Dr. Bryan* submitted a similar apology, which was also accepted; and then the committee adjourned until Thursday, at nine o'clock, A. M., evidently well pleased that this question was finally disposed of.

*Third Day.*—The President, *Dr. Lindsley*, called the association to order at half past nine o'clock. The reading of the minutes of the day previous were dispensed with.

*Dr. Grant*, of New York, asked leave to present a complaint against the New York Medical College, but upon information by *Dr. Edwards*, that a committee on ethics would be recommended by the nominating committee, he withdrew his request.

The minutes were then read. Several proposals to amend them were made, and either ruled out of order or withdrawn.

The appointment during last year of *Dr. Geo. Hayward*, of Boston, as a delegate to represent the American Medical Association in kindred societies in Europe, was announced by *Dr. Eve*.

*Dr. Hamilton*, from the committee of delegates from medical schools and colleges, to whom was referred the report of the special committee on medical colleges, reported the following preamble and resolution:

Fully appreciating the value and importance of the resolution under which they were appointed, but a majority of the gentlemen constituting this committee not being authorized by the medical faculties of the several colleges with which we are connected, to act as their representatives in this matter, and therefore regarding it quite impossible to secure a convention of delegates in the interim of the meetings of the association therefore,

*Resolved*, That we recommend to all the medical colleges entitled to a representation in this body, that they appoint delegates, especially instructed to represent them in a meeting to be held at Louisville, on Monday, the day immediately preceding the convention of the American Medical Association for the year 1859, at ten o'clock, at such place as the committee of arrangements shall designate.

The report was accepted, and the preamble and resolution were passed; after which several gentlemen claimed the floor, but the President decided that the reports of special committees were in order, the reports of committees on medical topography and epidemics having previously been referred to the committee on publication without reading.

*Dr. J. Foster Jenkins*, of New York, read a report on the Spontane-

ous Umbilical Hæmorrhage of the Newly Born, which was read and referred to the committee on publication.

*Dr. S. M. Bemis*, of Kentucky, read an able and learned report on the "Influence of Marriages of Consanguinity upon Offspring."

*Dr. John L. Atlee*, from the committee appointed at the annual meeting at Richmond in May, 1852, to procure a stone with a suitable inscription, to be inserted in the Washington monument, made a final report. It stated that Mr. Haldy, a marble mason of the City of Lancaster, Pennsylvania, had in his employment a young man, Mr. J. Augustus Beck, a native of Litiz, Pennsylvania, who had given unmistakable evidence of genius as a sculptor. At the suggestion of the late lamented Dr. A. L. Pierson, of Salem, Massachusetts, (made at the meeting in New York just ten days before his death,) the design of the celebrated painting of Girodet-Tricoson, representing Hippocrates refusing the presents of the Persian king, Artaxerxes, and his invitation to leave Greece, and reside and practice among her enemies, was selected. This was sculptured upon a block of Vermont marble, with the motto, "*Vincet Amor Patria*," and the stone is now at the monument grounds. The entire expense was \$1,000, of which one half was paid to the young artist. The amount contributed by members individually was \$501.30; the balance was voted from the treasury of the society. Accompanying the report was a letter from the Secretary of the Washington National Monument Association, and a resolution of thanks to the railroad companies, by whose liberality the stone was brought from Lancaster to Washington, free of charge. The report was accepted, and the resolution was passed.

*Dr. Palmer*, of Michigan, read a report, made by Dr. E. Andrews, of Chicago, Illinois, on the "functions of different portions of the cerebellum," of which the following is an abbreviated report:

The cerebellum is divisible into three lobes, one median and two lateral.

The muscular system of most animals is divisible into two groups, viz: those which act upon the anterior extremities and the adjacent parts of the trunk, and those which move the posterior extremities and the corresponding portion of the trunk.

The report shows that there is a direct ratio between the strength and bulk of the anterior group of muscles, and the size of the median lobe of the cerebellum.

Also, that the lateral lobes manifest a double ratio, their size being as the strength of the posterior group of muscles, and also as the size of the hemisphere of the cerebrum.

It is inferred that the action of the cerebellum is to *excite* motion, and not merely to *co-ordinate* it; that the influence of the median lobe

is chiefly expended upon the anterior group of muscles, and that the action of the lateral lobes is in some manner double, part of their influence acting upon the posterior group of muscles, and part of it having some relation to mental power, whose exact nature is not yet understood.

The facts and arguments are drawn from comparative anatomy, and illustrated with outline drawings.

*Dr. Campbell*, of Georgia, read a report on the "nervous concomitants of febrile diseases," which was accepted, and referred to the committee of publication.

*Dr. J. Marion Sims*, of New York city, read an abstract of his report on the treatment and of the results of obstructed labor, illustrated with a series of magnified illustrations.

*Dr. Stephenson*, of New York, read an abstract of his report on "the treatment best adapted to each variety of cataract, with the method of operation, place of selection, time, age, &c."

On motion, other reports were called for, read by their titles, and referred to the committee of publication.

*Dr. Edwards*, from the committee of nomination, offered the following list of committees for the ensuing year, which was accepted, and the committees were chosen:

*Special Committee on the Microscope*.—Drs. Holsten, of Ohio; Dalton, of New York; Hutchinson, of Indiana; Stout, of California, and Ellis, of Massachusetts.

*Special Committee on Medical Jurisprudence*.—Drs. Smith, of New York; Hamilton, of Buffalo; Crosby, of New Hampshire; Purple, of New York, and Mulford, of New Jersey.

*Committee on Quarantine*.—Drs. Harris, of New York; Moriarty, of Massachusetts; La Roche, of Pennsylvania; Wragg, of South Carolina, and Fenner, of New Orleans.

*Committee on Surgical Pathology*.—Dr. James R. Wood, of New York, chairman.

*Committee on Diseases and Mortality of Boarding Schools*.—Dr. C. P. Mallengly, of Kentucky, chairman.

*Committee on the various Surgical Operations for the relief of Defective Vision*.—Dr. Montrose A. Pallen, of St. Louis, chairman.

*Committee on Milk Sickness*.—Dr. Edward A. Murphy, of Indiana, chairman.

*Committee on Medical Ethics*.—Drs. John Watson, of New York; Dalton, of Massachusetts; Emerson, of Pennsylvania; Hamilton, of New York, and Gaillard, of South Carolina.

*Dr. Edwards* also reported, from the committee of nomination, the following resolution:

*Resolved*, That a committee of nine be appointed by the chair, to wait on the Hon. Howell Cobb, Secretary of the Treasury, and respectfully request the restoration of Dr. M. J. Bailey as inspector of drugs and medicines for the port of New York.

*Dr. Edwards* urged the adoption of this resolution. He considered the law regulating the inspection of drugs and medicines an important law. Its paternity could be clearly traced to the action of this association in Baltimore. He had urged its adoption at that time; he had taken it from there into Congress, and he had received upwards of nine hundred letters, advising, instructing, and aiding him. He had succeeded, and he felt that in so doing he had performed a great work. In obtaining the passage of the Act, he had been seconded by Dr. Bailey, who had for years been an inspector of drugs, with a view of ascertaining their commercial value, for the custom-house, and had discovered that two thirds of the drugs and medicines imported were adulterated, some of them grossly adulterated. After the passage of the Act, Dr. Bailey was very properly appointed, and had given the most perfect satisfaction to the colleges of pharmacy, to practitioners, and to all concerned.

Yet, after filling the office acceptably, Dr. Bailey had been removed. There was no paper on file against his qualifications, against his fitness, against his ability; but he had been removed upon the recommendation of four New York gentlemen. To show the strength of this recommendation, he would name one of these gentlemen, Isaiah Rynders! [Laughter.] Such was the authority upon which Dr. Bailey was removed.

Now, he did not intend to quietly see a gentleman so eminently qualified as Dr. Bailey is, put one side upon such a recommendation, to give way to a man who is said to be unfit for the place. Doctors Fitch and Chaffee had prepared a bill repealing the law in Congress, for it would be better to have no law than to have it thus administered. He would second them with all his might. The bill was the only public act with which his name was connected, and feeling for it the love of a parent to a child, he would prefer seeing it abolished to seeing it maladministered.

*Dr. Tyler*, of Georgetown, rose to reply, but gave way to permit Dr. Condie to have some special committees on medical subjects appointed.

*Dr. Palmer* moved to adopt the appointment of these committees as recommended; which was carried.

*Dr. Tyler* said that there was no member of the medical profession in the country who felt more indebted than himself to *Dr. Edwards* for his agency in procuring the passage of the law for the inspection of drugs and medicines. It was unnecessary to say a word in regard to the benefit which has resulted from the passage of that law, nor did he wish to be misunderstood in his opposition to the resolution. But when it was proposed to appoint a committee to wait upon the executive officer of government, and dictate to him, he felt that it would be turning aside from the purposes for which this association was organized.

The gentleman who introduced the resolution had said that *Dr. Bailey* would not have turned from his laboratory to elect a President. He commended him for it. But he would not have this association leave its noble sphere of action to approve or to denounce an appointment avowedly made upon political grounds. [Applause.] If the association leaves the field for which it was organized, and in which it has steadily labored for eleven years, he felt confident that it would result in no good; it might result in injury. He had not anticipated this action. He had given the subject no consideration; but it struck him as directly in opposition to the prosperity and the popularity of the association, and he asked gentlemen to pause ere they voted for the resolution.

*Dr. Bolton*, of Virginia, urged the adoption of the resolution.

*Dr. Cox*, of Maryland, concurred with *Dr. Tyler* in acknowledging the value of the services of *Dr. Edwards*, and he also concurred with him in objecting to the political, personal, and special character of the resolution which that gentleman had presented. The passage of such a resolution would open the door for unpleasant action hereafter. If a change was recommended at New York, one would be recommended at Boston, at Philadelphia, and at Charleston. That it would be well to disconnect these offices from politics he would admit; and he would consequently offer the following resolution, as a substitute for that of *Dr. Edwards*:

*Resolved*, That the appointment of inspectors of drugs and medicines in the various ports of the United States should, in the opinion of this association, have regard to the essential, moral, and scientific qualifications of the candidates, and not to considerations of personal favoritism or political bias.

*Dr. Edwards* trusted that the substitute would not be received by the association. The present occupant of the post at New York was notoriously unqualified for it. He wondered that gentlemen should object to seeing him displaced, to make room for the reinstatement of a

gentleman whose qualifications no one could question. Nor did he think that the Secretary of the Treasury would consider it an interference if the representatives of the medical profession of the whole country made a suggestion to him. Besides, Dr. Bailey is a democrat, and therefore the removal was not a political one. He had reason to believe that, upon a proper suggestion, Dr. Bailey would be restored. If he was not restored, the law would be repealed before the close of the present session.

*Dr. Tyler* supported the substitute offered by *Dr. Cox*, as a fair compromise. He believed that the appointment of a committee would transform the association into a political machine. He honored the gentleman from Ohio for the evidences of a warm heart which he had exhibited in endeavoring to procure the restoration of a friend to office, but with him a great principle was at stake. Gentlemen who do not reside in this District may not understand how heads of departments are importuned about offices, and how jealously the motives of all who take part in the appointment or the removal of the office-holders are scanned. He should prefer to see the resolution of *Dr. Cox* passed.

*Dr. Dunbar* inquired if it was the duty of a committee of nomination to nominate a candidate for inspector-general of drugs at New York?

*Dr. Batchelder*, of New York, called for the reading of the original resolution presented by *Dr. Edwards*.

*Dr. Parker*, of Virginia, offered other resolutions as a substitute for those offered; which were lost.

The question was then taken on accepting the substitute offered by *Dr. Cox*; which was lost.

*Dr. Wilcox*, of Connecticut, offered an amendment to the resolution of *Dr. Edwards*, "disclaiming all political consideration." The amendment was accepted by *Dr. Edwards*.

*Dr. Batchelder* testified to the qualifications of *Dr. Bailey*, whom he had known from his pupilage.

*Dr. Jewell*, of Philadelphia, hoped that the resolution would not pass. If it did, he would ask to have a gentleman at Philadelphia removed. Boston members will do the same, and this association will be wholly occupied with offices.

*Dr. Wood*, of New York, said that he rose from a sense of duty, and frankly confessed that he should vote contrary to his personal predilections, which were in favor of *Dr. Bailey*. But an endorsement of him would be a bad precedent. If we are to make ourselves judges

of any individual, we must make ourselves judges of all individuals. If we sit in judgment on the gentleman now holding this office, we shall gradually sink into political partisanship, and lose our present high position. He could not consent to sanction the public action of the association, although if a petition was drawn up for the reinstatement of Dr. Bailey, he would be pleased to see it signed by every member present in his individual capacity.

*Dr. Rodgers*, of New York, said that the subject had not been brought before the association at the recommendation of the delegation from New York, and he moved that it be laid on the table.

The previous question was called and sustained. The motion to lay on the table was defeated—ayes 49, noes 64.

*Dr. Sayer*, of New York, eulogized Dr. Bailey as eminently fitted for the place, and condemned the present incumbent.

The resolution, as amended, was then carried by a vote of 79 ayes to 52 noes.

*Resolved*, That a committee of nine be appointed by the chair to wait on the Hon. Howell Cobb, Secretary of the Treasury, and respectfully to request the restoration of Dr. M. J. Bailey, as inspector of drugs and medicines for the port of New York—at the same time disclaiming all political considerations.

*Dr. Bohrer*, of Georgetown, chairman of the committee on special medical essays, stated that they had not had time to read, much less consider, the papers placed in their hands.

On motion, the committee on special medical essays was instructed to hand such papers as they deemed worthy to the committee on publication.

The President announced as a special committee to wait on the Secretary of the Treasury, Drs. Arnold, of Georgia, Atkins, of Virginia, Buckley, of New York, Hayes, of Pennsylvania, Smith, of New Jersey, McPheeters, of Missouri, Hargraves, of Alabama, Ritcher, of Michigan, and Hooker of New York.

On motion, Dr. Edwards was added to the committee, as chairman. He declined, giving personal reasons as an excuse, but the committee refused to receive it, and he was accordingly chosen.

A gentleman stated that he with several friends had voted for the resolution with the sole intention of moving its reconsideration.

*Dr. Grant*, of New Jersey, presented a complaint made by the Newark Medical Society against the New York Medical College, for a violation of the ethics of the profession. Dr. Edwards presented a similar complaint, and Dr. Oakley a complaint from the



Union and Essex County medical societies. They were received and referred.

*Dr. Sutton*, of Kentucky, moved that *Dr. Jarvis*, of Massachusetts, have further time to report on a uniform system of registration of births, marriages, and deaths, and that a committee be appointed to urge upon the census bureau of 1860 the importance of having a physician attached to it to collect vital statistics.

*Dr. Kyle*, of Ohio, proposed an amendment to the constitution, by which no person can sit as a member or a delegate at meetings of this association who is not a graduate of a recognized medical college. Laid over for one year, under the rules.

*Dr. L. A. Smith* presented resolutions of the New Jersey Medical Society, praying for such changes of the constitution as would establish a board of census in every judicial circuit of the Supreme Court, who should examine and grant diplomas to all proper members of this association. Laid over for one year, under the rules.

*Dr. Humphries*, of Indiana, presented a resolution praying for an interchange of transactions of state and county societies, which was adopted.

*Dr. Boyle*, chairman of the committee of arrangements, presented the names of Professor Swallow, of Missouri, and Professor Mittag, as "members by invitation," and they were elected.

An invitation from *Professor Bache* to visit the Coast Survey bureaux, on Capitol Hill, was read, accepted, and a vote of thanks for the courtesy was passed.

*Dr. Gibbs*, of South Carolina, moved that Professor Henry be requested to favor the association with his views on meteorology at such time during the session as he may select. Carried unanimously.

*Dr. Campbell*, of Georgia, moved that the Secretary place on record an expression of the regret with which the society has learned the death of Drs. C. R. Walton, S. W. Granton, Marshall Hall, T. Y. Simmons, Mitchell, and other members deceased since the last annual session. Carried.

On motion of *Dr. Phelps*, the following resolutions were passed unanimously, the members rising:

*Resolved*, That the thanks of this association are eminently due to the Regents and Professor Henry, of the Smithsonian Institution, for the ample and convenient accommodation afforded for the transaction of business.

*Resolved*, That the committee of arrangements are entitled to our praise and highest appreciation of their exertions to promote the comfort of the members and the best interests of the association.

*Resolved*, That to the physicians of Washington and Georgetown, and the faculty of Georgetown College, we accord the homage of our sincerest thanks for their elegant hospitalities extended to the members from abroad, by which the pleasure of their sojourn here has been so greatly enhanced.

*Resolved*, That we feel assured that the impressions on the tablet of memory received here, in our national metropolis, in this the first year of the second decade of the association, will long remain an evidence of the urbane attentions received not only from the Chief Magistrate and other public functionaries of our glorious Union, but of private citizens and the community at large.

*Resolved*, That the manifestations of union of heart and purpose in the action of this session inaugurate a new era, and call for devout acknowledgment to Divine Providence, and presage, as we trust, not only a bright future for the association, but also as contributing to the perpetuity and prosperity of our great national confederation.

On motion of *Dr. Anderson*, of New Jersey, it was unanimously resolved that the thanks of the Medical Association be presented to Rev. Dr. McGuire and the faculty of the College of Georgetown for their very cordial reception and entertainment of the association at the College yesterday.

*Dr. Arnold*, of Georgia, then exhibited specimens of a new method of medical preparations, very interesting to the association.

On motion of *Dr. Foster*, of Tennessee, it was resolved that after 1860 *Dr. Hamilton* have the privilege of using his report on "deformities after fracture," published in the Transactions, for a work which he proposes to publish.

*Dr. Duhamel*, of Washington, moved that a committee be appointed to investigate and report upon the "National Hotel disease."

*Dr. Foster*, of Tennessee, opposed the appointment of such a committee, as did *Dr. Boyle*, of Washington. *Dr. Duhamel* withdrew his motion.

*Dr. Campbell*, of Georgia, was not aware, until he had just heard permission granted to *Dr. Hamilton*, that he had transgressed in republishing in a work a report which he had contributed to the Transactions of the Association. [Cries of "Regret it," "regret it."] He did regret it, and asked the sanction of the society; which was granted.

The president appointed Drs. Miller, Antisel, and Garnet a committee to wait on the census bureau, as provided by the resolution of *Dr. Sutton*.

*Dr. Dunbar* moved a reconsideration of the vote appointing a committee to request the reinstatement of *Dr. Bailey*, and *Dr. Morgan* seconded it; but, as *Dr. Parker* had been invited upon the platform, the motion was ruled out of order.

*Dr. Peter Parker*, ex-commissioner to China, was then introduced, and was received with applause. He exhibited some curious specimens of *calculi*, as the results of thirty-eight operations upon Chinese. They were of various shapes and composition, and weighed from a few drachms up to three, seven, and eight ounces. His description of the operation by which these calculi were removed was deeply interesting, and it was gratifying to learn that out of the thirty-eight patients all but five or six recovered perfect health.

*Dr. Parker* proceeded to state that he has treated in China, at the hospital under his charge, fifty-three thousand cases. Pictures of the most curious cases he had brought to this country, and they were on exhibition in the room below. At no very distant period he hopes to place in a permanent form the result of his labors, with illustrations. [Applause.] Among other cases, he had probably performed upwards of a thousand operations for cataract. One day he operated in sixteen cases, the youngest being a mere child, and the oldest an old lady seventy-nine years of age. She came, led by a servant, submitted heroically to operations on both eyes the same day, and in a fortnight had her sight perfectly restored. [Applause.] In acknowledging a vote of thanks, *Dr. Parker* said he had among his patients all classes, from members of the imperial family down to beggars. His greatest difficulty had been to persuade his patients that he could not cure all diseases.

*Dr. Dunbar* claimed the floor, and urged the reconsideration of the vote appointing a committee to wait on the Secretary of the Treasury, and solicit the reinstatement of *Dr. Bailey*.

*Dr. Payne*, of Virginia, opposed the reconsideration.

*Dr. Tyler* advocated it, and asked if this association was formed to wait on executive officers, and to dictate to them who they shall remove and who they shall appoint. Many gentlemen around him, he was assured, had voted for the resolution without due reflection, and he trusted with confidence in their sober second thought. The press and the profession, he felt confident, would denounce this association if it entered into the wide field of politics. It was instituted to promote the great cause of science, not to join issue with government.

*Dr. Morgan* also advocated a reconsideration. He was not a partisan. Although he resides in Washington, he has no personal acquaintance with the President or the Secretary of the Treasury, but he was confident that they would not have made the change without good reason, and it was not the mission of this association to criticise or to attempt to change their views.

*Dr. Palmer*, after stating how little regard he had for the opinions of the press, inquired as to the present incumbent of the office. Is he capable?

*Dr. Watson*, of New York, said that *Dr. Bailey* had had his circulars out since his "rotation," and the subject had been twice before the Academy of Medicine, who have ignored it.

*Dr. Burns*, of Brooklyn, said that he was not a politician, and that he was a personal friend of *Dr. Bailey*, but he hoped that the vote would be reconsidered.

A member from California related his experience there on a question as to the superintendent of a lunatic asylum. In his opinion the less the association had to do with politics, or with expressions of opinion on political appointments, the better.

*Dr. McNulty*, of New York, said that the question had been twice before the New York Academy of Medicine, and twice been voted down. The present incumbent, whom it is sought to oust, is a German by birth and education. He can read the invoices in whatever European language they may be sent, and he makes his own analyses, which it is reported the ex-inspector did not do.

After some "parliamentary" skirmishing, it was decided to reconsider by a vote of 51 ayes to 32 noes. And on motion, the subject was then indefinitely postponed.

The association then took a recess for two hours.

*Evening and Closing Session.*—The association was called to order at five o'clock, P. M., by *Dr. Sutton*, one of the vice-presidents, who took the chair.

The amendments to the constitution, proposed at the annual meeting at Nashville, had been made the "special order." They were,

1st. Amend the third article of the constitution, in relation to meetings, by inserting after the words "first Tuesday in May," the words "or the first Tuesday in June;" and also inserting after the words "shall be determined," the words "with the time of meeting." 2d. In article 2, omit the words "medical colleges," and also the words "the faculty of every regular constituted medical college, or chartered school of medicine, shall have the privilege of sending two delegates.

Each amendment was separately discussed, and each was lost by a large vote. An amendment proposed at Philadelphia, in 1856, providing for the establishment of a permanent secretaryship, was lost by a vote of 53 ayes to 84 noes.

On motion of *Dr. Foster*, of Tennessee, the Secretary was directed to collect all the by-laws and have them printed in the next volume.

An attempt was made to introduce a motion endorsing the acoustics and ventilation of the new Capitol extensions, but it was ridiculed by Dr. Sayer, and was withdrawn.

Various additional votes of thanks were passed, and at ten minutes of seven the association adjourned *sine die*.

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*Obstetric Section of N. Y. Academy of Medicine—Regular Meeting, March 15, 1858. B. FORDYCE BARKER, President; Dr. UNDERHILL, Secretary. Reported by GEO. F. SHRADY, M.D.*

Subject for discussion—Version and the use of Forceps in Labor.

Dr. Barker stated that the subject for discussion was the result of a report of Dr. Gardner's case. The point was, to discuss the comparative use of one and the other method of delivery in a simple case where it was optional to use either the one or the other, the head being at the superior strait.

Dr. Gardner then related the following case: The woman was three days in labor, and had suffered from very severe pains. It was her first child. When I saw her, she had taken tart. emetic freely, so as to produce free emesis. It was at six o'clock in the morning; the os uteri was dilated to the diameter of two and a half inches. The question was, what to do in that case; the pains were intense, as forcible as could be desired, and the head did not come down so as to press upon the os. I advised giving her morphine to relieve the pains, and wait for further developments. She took before 12 o'clock, two grains, and from 12 to 4 o'clock, a grain and one half more without producing the slightest sensible effect either upon the os or pains, which continued as severe as before. At 4 o'clock, the question came up as to what was to be done. I recommended attempting to apply the long forceps; the question then was, whether it was not better to open the head—for the result of the pains from morning till night was nothing more than to jam the head down into the pelvis, showing plainly a disproportion between the head and the capacity of the pelvis. In accordance with my advice, the long forceps were used, and applied by the gentleman who had the case in charge; he, however, did not succeed in applying it. The instrument was then handed to me, and with some difficulty I passed them over the head of the child, and bringing down the head two inches; it pressed for the first time upon the os uteri. This os was rigid and firm. Chloroform was then given for the purpose of dilating the os, and then more traction

being made without much difficulty, I was enabled to deliver the child in the course of from twenty minutes to half an hour from the time they were first applied. The indentation upon the frontal bone where it had laid against the promontory of the sacrum, was of spoon-shaped description. The child with some effort lived till 9 o'clock. In connection with this case, said he, Dr. Hubbard inquired why turning was not resorted to, and why it was not as practicable.

*Dr. Pond.* It is a long time for severe pains to be continued; however, the result in this case proved that the application of the forceps was wise; but the question that would arise in my mind, from the statement in this case, is, whether opening the head would not have been a proper resort.

*Dr. Gardner.* This was the question that was raised at the time.

*Dr. Barker* stated that this brought up the grand difference between the Irish and English schools of obstetrics, compared with those of the continent. They do not apply forceps unless the head be in the pelvic cavity, and urgent symptoms show themselves, nor until the head has remained there some six hours, together with symptoms that indicate great suffering on part of the mother. When there is obstruction to delivery at the superior strait, and symptoms arise proving the necessity of resorting to artificial means, they generally choose craniotomy. Continental obstetricians resort to the long forceps when the head is in the superior strait—and in these cases they operate very much sooner than Ramsbotham directs.

*Dr. Gardner.* The operation of version has been much simplified by the introduction of chloroform, before which there was great difficulty attending the operation, both to the mother and to the physician. The irritation of passing the hand into the vagina in a primipara and the irritation to the uterus, increased the woman's sufferings very materially, and also those of the physician. I don't know that I ever had quite such a good idea of the sufferings of the Inquisition as I did when I had my hands in a uterus attempting to turn. The pressure upon the arm and hand was exquisitely painful, and not unfrequently all power of efficient action is destroyed. It is not until the uterus gets accustomed to this unusual stimulus that you can succeed in grasping and effecting the delivery. These are the two objections that relate to the inconvenience to the mother and physician, now of much less importance than formerly, before chloroform was introduced into obstetric practice. The third objection is principally owing to the injury done the child. I think by reference to statistics, it will be shown that the operation is very fatal.

In the case I cited, I am confident that the child could not be born through the rigid os. I had a case within a few days where a child on account of some deformity of the head, the head passed through in a wedge shape so as not to entirely dilate the os uteri. The effort to pull the shoulders and body through that os was very great. When you come to deliver a child by turning through an undilated os, you will certainly have a dead child, and probably a laceration of the cervix. In general, if the os is fully dilated, the matter is simplified. If the operation is performed for the sake of delivering the child through a pelvis that is contracted in its diameters, you can certainly deliver the feet, probably the body and less certainly the head, which will remain in the superior strait, and if drawn through, it is at the expense of so much effort as to be fatal to the child. The operation that I prefer under these circumstances, is either the forceps, and if I fail in that, resort to craniotomy.

Dr. G. referred in this connection to a case reported by Dr. Finnell, at the last meeting of the New York Pathological Society. A woman was taken in labor, and was under the care of a midwife, who, seeing the cord present, sent after a physician. The physician came to the case and attempted to apply the forceps over the head, and for some reason or other they slipped off. He stated that he had a very sick patient to see in the neighborhood, and he left. Another physician was sent for, who also applied the forceps, and they slipped off. He stated that he had a very bad patient to see in the neighborhood, and he left. A third physician was sent for, who, when he saw the case, thought that it was necessary to turn, and he introduced his hand and brought down one foot. Seeing the case to be a pretty tough one, and he had a patient to see, he left. A fourth physician was sent for; seeing the nature of the case, thought best to send for a fifth, who was a strong muscular man, took hold of the feet and body, gave a pull and left the head behind. The coroner determined what the trouble was. It proved to be a rupture of the uterus from some effort that had been made previously. In this case the head was left behind, as will frequently be the case—the child's life is sacrificed, and great injury done to mother; whereas, if you can deliver by the forceps, it affords great probabilities of life to the child, and if that does not succeed, opening the head relieves the mother from any difficulty.

In answer to a question from Dr. Sewall, he stated that the woman had a convulsion and died within an hour after delivery.



*Dr. Pond* inquired whether it was possible to introduce the hand when the os is not very well dilated?

*Dr. Gardner.* The os was two inches across, and the hand could be introduced where the forceps went. This introduction was possible in the morning, but when the head was jammed down, as I have said, the case was somewhat different.

*Dr. Hubbard.* Dr. Simpson states that the difficulty of turning and the danger to the child and patient depends much upon the version being done early. The safety of the mother is in favor of turning in distorted pelvis, provided that it is done early. We see, likewise, in hand presentations, that the os uteri is not dilated any further than to admit the arm, but we must turn to deliver, and we generally succeed and deliver without injury to the mother; and generally, I believe—at least I have never found an exception to the case—that the head passed likewise. I cannot see the very great objection to opening the head from below. It seems to me that wherever forceps can be used, the hand can also go.

*Dr. White* being called upon for an opinion, said that it would depend entirely upon the circumstances of the case; there was no general rule. He never had a case in which there was any doubt as to the course to be pursued; it was either a decided case for either version or forceps. He referred to a case where a woman could not carry her young past the seventh or eighth month; but version being resorted to, the child was born alive, when under other circumstances it would have been fatal to the child. He also referred to another case where the head was so low down that version was impracticable, and it became a nice point to decide between the merits of the forceps or perforator; the latter operation was resorted to.

*Dr. Shanks.* This subject recalls to my mind a case that occurred some years ago, in which a gentleman present was called at the same time. It was a case of a woman who had been in labor for some twenty-four hours. I examined and found the hand presenting—the other gentleman who was called, came a minute or two after me, and finding the case to be such, we consulted together. He suggested the idea of waiting for spontaneous evolution. I suppose that the case had been long in hand; the waters had evacuated at seven o'clock the night previous. It was then four o'clock, P. M. The hand had presented since five o'clock, A. M. There was a little discharge of lochia, which was very foetid. I rather strongly insisted that an effort, at least, should be made to turn the child. The gentleman very kindly assented. I introduced my hand with very great difficulty, indeed,

and after some time succeeded in getting hold of a foot and brought it down. The operation was effected with safety to the woman, though the child had been dead for some time.

Now this was a case which, it occurred to me at the time, might have been brought to a more favorable issue if a regular physician had been called in the first instance. I believe it was a midwife, however. She had informed the parties that all was right, and the labor would be completed in a short time. I was told by parties present, that she first supposed it to be a head presentation, but by her officiousness converted it into an arm presentation. He thought it was a very interesting case in connection with the subject discussed. Dr. Pond was the physician who attended the case with him.

*Dr. Thomas* asked if when the head presents at the superior strait, if the body of the uterus be tender to the touch, the uterus fully evacuated and contracted down, whether it was not better to resort to the forceps, as introduction of the hand might cause rupture.

Again, when the head presented, as before—when the body of the uterus was not tender, os uteri not fully dilated, and uterus recently evacuated, whether it would not be much better to resort to turning. He also stated that there was one point mentioned by Dr. Gardner, of which he was not before aware. Dr. Ramsbotham states that through an os of the diameter of three inches a forcep can never with safety be used.

*Dr. Barker.* This is a mistake; I have proved the contrary more than once.

*Dr. Thomas* asked if when the uterus has contracted down upon the child, if the use of version was not contra-indicated and forceps preferable?

*Dr. Hubbard* suggested, under these circumstances, tart. ant. and the warm douche.

*Dr. Thomas.* It might relax the os, but would the body of the uterus be similarly affected?

*Dr. Hubbard.* This would depend greatly upon the length of the labor and the condition of the patient generally. The proper time is often allowed to slip by, in order to wait for the opportunity of applying the forceps.

*Dr. Gardner.* As to rigidity of the os, I don't think much of it any way. Dr. Ramsbotham makes it as a definite rule never to apply force where the os is rigid, because he thinks there will be laceration instead of dilatation. I should not stand for this objection—it is a thing that very frequently occurs; it is frequently observed by those

who are accustomed to make speculum examinations. In two cases I have made long incisions in the os. I had one case where there was no obstruction except in rigidity of the os. For three days she had strong pains, and I relieved her by cutting it; it cut like cartilage. I think it is decidedly better to divide it than to have it tear.

*Dr. Barker.* I suppose every obstetrician has certain rules that he would adopt in every contingency. There are a class of cases in which the recourse to either one or the other mode is optional—either version, the forceps, or craniotomy. It was to that class which I supposed the discussion this evening principally confined. I have been disposed to adopt the continental mode of practice, the use of the forceps wherever it can be used. When the head is at the superior strait, and there is no disproportion between the size of the head and of the pelvic cavity, I believe in the use of the long forceps. I have delivered from the superior strait with the long forceps five times. In these five cases four of the children have been delivered alive; one died eight hours after delivery. The patient was a primipara, short and stout. The antero-posterior diameter of the superior strait in this case was a little over  $3\frac{1}{4}$  inches. I make it a rule in practice to apply the long forceps, if immediate delivery is indicated, whenever they can be used. It is an operation producing less shock to the mother, and affords greater chance to the child than version. There is a class of cases, however, where it is not possible to use the forceps, but where version can be resorted to. I have delivered three cases of this kind, resorting to turning instead of craniotomy. *Dr. Barker* then related the following case of forceps delivery in the case of a primipara. She had an active circulation, had a full muscular development, and was a patient of a great deal of nervous irritability. She had come from St. Louis, and had been told by a physician in that place that she must not take chloroform, inasmuch as she had a disease of the heart, and it would kill her. *Dr. Harris*, who was in attendance, said that she had been in labor 22 or 23 hours before the cervix dilated. The pain in the meantime was so very active that the woman was almost exhausted. After 22 or 23 hours of severe labor pains, the cervix relaxed with great rapidity. I found, on examination, that the head was movable above the pelvic cavity. Each pain was attended with a very great degree of nervous excitement; her face became turgid and swollen, and she lost all her self-control. We were met with the objection that she could not take chloroform. We answered to that by saying that her present danger was infinitely

greater, and, without stopping to ask permission, we immediately commenced the administration of chloroform.

Then the question as to the mode of delivery came up. I said to Dr. Harris, my rule is to use the forceps if possible. They can be tried without any great loss of time or danger to the mother. I could then discover no signs of foetal heat, though the sounds had been heard two hours previously by Dr. Harris. Having made my examination, I was satisfied that there was a slight degree of contraction in the antero-posterior diameter of brim. I applied the forceps with some difficulty, and delivered the child. The child was still-born, but was compelled to breathe upon resorting to Marshall Hall's ready method. The mother had a pretty smart metro-peritoneal attack, which caused considerable anxiety at the time.

In three cases I have resorted to version according to Prof. Simpson's plan, when the head was at the superior strait; of these three cases, two of the children are living. If it will not occupy too much time I will mention them.

The first case occurred nearly five years ago. I was called by Dr. Robson to see a patient with him in 23d Street, but I being not at home at the time, he sent for Dr. Johnston. It was to a lady 22 years of age; it being her first child, the case was one of great anxiety, as the child would fall heir to a large estate. As soon as I came home I went there. The patient was in active, strong labor, which she bore well for some hours, but by the time that I saw her she was extremely irritable, and a vaginal examination gave rise to immense suffering. Her pulse was good. Dr. Johnston urged waiting. I urged chloroform, in order to give a thorough examination. After waiting, however, for three or four hours, the irritability became so great that he consented to the administration of chloroform. The cervix was well dilated; the vagina at first examination was hot and dry, but after the administration of the chloroform it became relaxed, and there was less heat about it. I have noticed this fact often, even when the body of the uterus was tender and the waters were evacuated for hours, it apparently disappears, the parts become moist, so that delivery by version can be resorted to.

We then found the head at the superior strait not engaged at all in the pelvic cavity, but it was indented by severity of the uterine contractions. Dr. Johnston made an examination, and thought that it was impossible for the head to enter the pelvis without the use of the perforator. I then suggested to him Dr. Simpson's plan, and gave a pretty full detail of the arguments in its favor. I told him that I

thought it possible that a delivery might be effected. Dr. Johnston was willing, though he thought it very doubtful, and so did I. I introduced my arm, seized the sub-pubic knee, and accomplished version without any difficulty. I then proceed to extraction. The extraction of the trunk was easy until I came to the delivery of the shoulders. I had to extract one at a time, and with great difficulty. Next we came to the head, which had to be rotated, Dr. J. assisting from without; at last, after much difficulty, we brought the longitudinal diameter of the head to correspond with the transverse diameter of the brim. In producing traction we experienced so much difficulty that we were about giving it up, but I urged another trial, which resulted in getting the head into the cavity of the pelvis, and the child was then delivered with ease. The child was still-born, but it was resuscitated, and is still alive. Two years subsequently the patient again fell in labor, but the head was a great deal smaller, and delivery by forceps was resorted to.

The second case was one occurring in the practice of Dr. Lafayette Ranney. Patient æt. 20, short, stout and very muscular. She was in labor some twenty-two hours, and when Dr. R. sent for me it was with a message to bring my instruments. The head was at the superior strait, and the woman was suffering very violent pains. I attempted to deliver by the forceps, and failed. I could not make the head enter the pelvis. I then proposed Simpson's plan; I turned and succeeded in getting the head into the cavity of the pelvis partially. I then had to try the forceps. The child was delivered still-born; all efforts at resuscitation failed.

The third case was in a lady from Herkimer County, 38 years of age. Having lost five children in labor, she was extremely anxious to have a living child. She placed herself under my care. Judging from external appearances, you would have supposed that she had a large pelvic capacity, but on careful examination I found there was a diminution in the antero-post diameter of the brim.

I was aware of the circumstances of the case, and I thought of it considerably. I thought it possible to deliver by the long forceps. When she was in labor, and as soon as the os was fully dilated, I made use of the forceps, but without success. I then introduced my hand and turned. To my great surprise the child was born alive. The next day I called to see her, and she did not show any signs of the shock whatever. The child weighed  $10\frac{1}{2}$  pounds.

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